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# USSR Report

AGRICULTURE

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2 July 1985

## USSR REPORT AGRICULTURE

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MAJOR CROP PROGRESS AND WEATHER REPORTING

PLANTING SITUATION, AGRONOMISTS DISCUSSED

Spring Planting Situation Described

Moscow SOVETSKAYA ROSSIYA in Russian 30 Apr 85 p 1

[Article: "Russia's Spring Field"]

[Text] April gave the crop growers many sunny days and put them in a good mood. Labor enthusiasm reigns in the Russian Federation's agricultural collectives on the eve of May Day and the 40th anniversary of the Victory. Decisions coming out of the recent plenum of the CPSU Central Committee were universally received with unanimous approval and are inspiring people for the large creative job ahead.

More and more units are entering Russia's spring fields every day. Planting has moved into areas of the Nonchernozem Zone and the Middle Volga region. It will soon be underway in the Urals and Siberia. Spring's belated arrival has finally provided access to the big fields. There is a great deal to be done. The grain growers alone will have to plant around 47 million hectares. Large areas will be planted to potatoes and other vegetables, sugar beets and sunflowers, and spring crops will be planted on almost 77 million hectares.

It is a big job, we are pressed for time and we must therefore work hard. Most importantly, we must have a high level of organization and irreproachable discipline. The effective use of equipment, accumulated experience and knowledge, and the reserves which have been found will now depend mainly upon this.

One only has to visit the spring fields today to see that a mood of earnestness, strict demandingness and initiative are the most salient features of the work being performed by most of the teams, brigades and planting crews. Kolkhozes and sovkhoses in Lipetsk Oblast have decided to accomplish the planting of early grain crops and perennial grasses in 60 to 70 hours. The contract teams have begun it in an organized manner. It is not enough merely to perform the work on schedule, however. We must also do a good job of preparing the soil and planting the seed. At the initiative of those out front, many teams are planting and fertilizing simultaneously. This is resulting in fewer labor outlays and giving greater assurance of a full harvest.

Pilots of agricultural aviation who are top-dressing winter crops on the fields of the Chuvash ASSR have installed highly efficient fertilizer sprayers on the aircraft. This, combined with their mechanized loading, has permitted the flyers to perform the work well and rapidly.

The field workers in Maritime Kray are for the first time planting early crops with seed processed by laser, which is helping to raise its germination rate and increase yields.

Such reports are coming in from various regions. Many of the teams today are demonstrating a desire to do more and do it better.

There are also numerous shortcomings, however, resulting from neglect and in some cases, blatantly bad management. We still have cases of intolerable delay in deciding on questions of providing support for the spring planting. What do the kolkhozes and sovkhoses in Chita Oblast have for beginning the planting, for example? At the beginning of April 2,000 tractors had not been repaired, including hundreds of high-powered tractors. There is not enough grain seed, and the supply of seed for certain crops is altogether scanty. There is only slightly more than half the needed barley seed, for example, and only 12 percent of the seed needed for pulse crops. There is no way this can be called an omission; it is more like negligence on the part of the agronomists and those in charge of the farms and RAPO [rayon agroindustrial associations].

Nor is it apparent that they have concerned themselves with such a basic question as the distribution of the farm crops. The zonal cropping system specifies that grain must be planted on 1.1 million hectares and feed crops on 715 thousand hectares in the oblast. This is the only way to ensure fulfillment of the grain, meat and milk procurement plan. Spring has arrived, however, and it has been learned that the oblast has decided to reduce the area planted to grain by almost 30,000 hectares, the area planted to feed crops by 50,000. Those in charge of the oblast agroindustrial association could not provide an intelligent answer when asked why this is being done, what the considerations were. They planned to plant more potatoes. The kolkhozes and sovkhoses have only 59 percent of the needed seed, however. And it is not completely clear whether the farms will even have enough, because there is essentially no time left to acquire the seed in other oblasts and from the population to be hauled in.

This is how the peak period tests the efficiency of those in charge and reveals their ability to assess the situation objectively, without embellishment, to resolve problems efficiently and promptly and to look ahead.

The greatest concern, perhaps, is caused by the fact that the seed is of poor quality on the farms of a number of oblasts and autonomous republics. Let us picture for a moment planters loaded with grain with a poor germination rate. The units sweep over the field and rapidly place the seed at the required depth, and the farms report that the planting is completed. Who could be happy with such reports, however? It is pointless to expect a good harvest if what is essentially trash and not grain is dropped into the soil.

Many farms of Kirov Oblast plan to load the planters with this kind of planting material, if it can be called that. Only 3 percent of the total quantity of grain seed there measures up to the planting standard for first-class grain, and one-quarter has a substandard germination rate.

Agriculture's most important task remains that of steadily building up grain production. And if a specialist or any official in the agroindustrial complex fails to appreciate its importance or does little to see that it is carried out, that individual should be held strictly responsible. We cannot permit the same errors and shortcomings to be repeated year after year. The local party committees should draw some conclusions and take effective steps. In some rayons the party committees are not assessing the situation critically and are not demonstrating the necessary demandingness of those who are disorganized, permit deviations from the optimal planting schedules, do a poor job of preparing the seed and equipment and do not take scientific recommendations into account.

Take, for example, such an important matter as the employment of intensive technology for cultivating agricultural crops. It should be started right now, in the spring. It turns out, however, that certain farms are not working the soil well, are applying herbicides unevenly and not adhering to schedules for performing the field operations, and some of the equipment is standing idle.

The adoption of the intensive technology requires more thorough preparation of the machine operators, organization of supervision of the use of scientific methods and monitoring to see that the rotation and all of the operations are performed correctly. Good results are achieved where these requirements are met. A. Spiryakov's brigade on the Perstovskiy Sovkhoz in the Ryazan area, A. Morozov's brigade on the Rodina Kolkhoz in the Astrakhan area, and Kh. Gutov's team on the Krasnyy Kavkaz Kolkhoz in Kabardino-Balkaria cultivate corn, potatoes and other vegetables with the industrial technology and obtain stable yields from each hectare which are 1.5- to 2-fold greater than obtained by other collectives on their farms. Furthermore, their labor outlays are half as large as those of the other collectives. Having adopted the noncontract system, these brigades and teams have now decided to achieve even more.

The feed crop requires special attention this spring. This is due not just to weather conditions. The past wintering of the livestock revealed specific places with experience worthy of dissemination, as well as cases of ill-considered feed production operations. Taking the recommendations of the scientists into account, many farms have adjusted their feed crop structure so as to eliminate a shortage of concentrates in the livestock ration. One way to resolve this problem is to raise corn for silage not in the conventional manner, but according to the grain production technology, in order to obtain a grain-and-stalk combination. It can replace a significant part of the concentrates. This is why it is very important to perform the planting this spring and then care for the corn especially thoroughly. It will be planted on a total of 1.3 million hectares on farms in 42 oblasts, krays and autonomous republics. This is a matter of great state importance, and it is essential for



every kolkhoz and sovkhoz to lay a reliable foundation for a large harvest during the planting.

The spring crop is the best test of the strength of cooperation among partners in the agroindustrial complex. Workers with the Sel'khozkhimiya [State Committee for the Supply and Application of Chemicals in Agriculture?] and Goskomsel'khoztekhnika [State Committee for Supply of Production Equipment for Agriculture] departments in Orel, Yaroslavl and Voronezh oblasts do not have a sense of responsibility for the future crop. They systematically fail to fulfill plans for the application of organic and mineral fertilizers and for the liming of acidic soils.

Party organizations in the rural area are expected to resolutely combat all manifestations of departmentalism and localism and to strive for the smooth functioning of all elements in the planting system. Those who do not give proper attention to cultural and personal services for the collectives engaged in the spring planting must also be held strictly accountable. The machine operators are frequently forced to spend a great deal of time on lunch, since arrangements are not made for the food to be taken to the field.

The many years of experience of rural party committees indicates that it is expedient at this time to shift the organizational and political work to the brigades and teams, to orient them toward the successful performance of the planting, strict observance of agrotechnical requirements and the extensive adoption of economic accountability and the collective contract, and the organization of effective socialist competition for a good harvest for the final year of the five-year plan.

Russia's spring crop is gaining strength, and the plants have sprouted in the southern regions. The bulk of the work lies ahead, however. It is extremely important to perform the planting rapidly and well. It is the duty of the rural workers and of each crop grower to successfully carry out this task, thereby making a worthy contribution to the implementation of the Food Program.

#### Agronomist's Importance Stressed

Moscow SOVETSKAYA ROSSIYA in Russian 7 May 85 p 1

[Article by Vladimir Mikhaylov, assistant editor of the newspaper for the agricultural section, under the rubric "The Editor's Opinion": "Serving the Land"]

[Text] It would be difficult to find another occupation in agriculture which has the attraction of the agronomist's job. Those to whom this title is granted are trusted to be thrifty managers, preservers of that thin layer of soil--sometimes only centimeters thick--which is actually what supports life on earth. The successful accomplishment of the task set at the April Plenum of the CPSU Central Committee--to carefully apply the possibilities possessed by the kolkhozes and sovkhozes, to make efficient use of the existing capability and to activate all reserves for increasing food production--depends to a significant degree upon them, the agronomists.



Our agriculture has not had an acute shortage of agronomists for a long time now. Practically all of the positions have now been filled, and what is especially important is that 98 percent of them are occupied by specialists with a secondary or higher education.

There is no shortage of knowledge or good intentions in the corps of agronomists today, and when these are enhanced by enthusiasm and persistence in the achievement of the objective, all difficulties literally seem to fall away. A.D. Langol'f, chief agronomist and currently deputy chairman of the Zarya Kolkhoz in Leninsk-Kuznetskiy Rayon, Kemerovo Oblast, has succeeded in demonstrating this with his own example. He achieved good yields where he formerly worked. After that, he moved on to the Zarya, whose fields were neglected and which lagged behind its neighbors in all respects. It is now among the best in the oblast, and last year its grain growers harvested more than 35 quintals of grain per hectare. Not a single Kemerovo farm had ever before had such a harvest.

And A.D. Langol'f had not made any special discoveries. He introduced and creatively applied that which was already known.

Every agronomist who is devoted to the land reveals something of his own, some peculiarity, but they also all have something in common. This is primarily their steadfastness, firmness of conviction and principle. They do not hasten with the planting simply to be in first place in the report, if they are certain that haste will harm the crop. They do not give the "green light" to a new variety until they have verified its advantages. Our good agronomists in the Nonchernozem Zone have always raised plenty of clover, although it is more trouble than any other grass.

It is frequently not easy for the agronomist to stand up for his right, the right of a specialist to make his own decisions. Pressure from officials inclined toward bureaucratic administration is frequently great. There is also a great temptation to get as much as possible from the field today, even at the expense of the future. The Cherlaskiy Rayon Agricultural Administration in Omsk Oblast, in which A. N. Ivanov is the chief agronomist, reduced the fallow area on the Bol'sheatmasskiy Sovkhoz by 450 hectares. Nikolay Demesh, chief agronomist on the sovkhoz, is a young man with less than a year on the farm. He hesitated to protest, but he could not conceal his dissatisfaction:

"They did this in order to obtain as much alfalfa seed as possible. It has to be planted on fallow land, however. It turns out that without wanting to do so, we are destroying what we are building up."

It would be difficult to say whether the young agronomist is right in this specific case, but the specialists should have resolved this special dispute, and they should have listened first to his opinion. He is the one responsible for the agricultural land there and for its output. Unfortunately, this was not done. Everything was decided in offices far from the sovkhoz.

Life has taught us that we can no longer reconcile ourselves to bureaucratic administration today, especially when it is dictated by some spur of the moment

needs and is inseparably linked with neglect of the land. We are in charge of it, and there is no one but us to protect it. One cannot help being gratified by the fact that the situation in agriculture today is changing in the direction of creative quest and initiative. The conversion to scientifically based cropping systems is being completed universally, and in the vast majority of cases all of the requisites have been created for the mastery and precise implementation of crop rotation systems, the correct rotating of the crops and timely restoration of the cultivated land. There is a prevalent clear awareness that while striving for maximum yields, we should simultaneously enhance the fertility of the soil.

Great authority also involves great responsibility. The agronomists are not merely technologists and not merely specialists. They are the organizers of production and people of the state. Consequently, a state approach to the job is expected from them. It is a shame when an agronomist turns over land for which he has been responsible to his successors, exhausted and with its former capacity lost. It is also unforgivable, however, not to take from the land everything it is capable of giving us.

Under a scientifically based cropping system in Kursk Oblast it is planned to reduce the area planted to grain by 24,000 hectares this year, although we know that average annual grain harvests there have been 376,000 tons smaller in the 80's than during the first half of the 70's. This is apparently being done at the initiative and with the agreement of the oblast agricultural administration. For the sake of localistic interests, it is planned to lighten the load somewhat and create certain reserves in case good coordination is not achieved in the work.

Intensive technology will be applied on a massive scale for the first time on many millions of hectares this year. Crop cultivation is being turned into an industrial section of the agroindustrial complex before our eyes. The demands made of the technologists in charge of the cultivated land are increasing correspondingly. The consequences of their decisions, correct or incorrect, will now be far more perceptible than before. It is therefore only natural that on many farms their wages are being made dependent upon the harvest, upon the success or lack of success of the contract collectives.

As stated at the beginning, we now have enough agronomists, but their ranks should still be increased each year. Experience has shown us that grant-aided students from the farms, who return to their native parts, settle down best and develop most rapidly. In Krasnodar Kray, they are only now beginning to develop crop growers with the highest skills rating. In many oblasts, however, local agricultural agencies are still not taking an adequately active part in the shaping of the student bodies. Naturally, the young specialists are not being retained there as well. Many cadres are also lost because the agricultural VUZ's are distributed extremely unevenly: There are few of them in Siberia and in the Nonchernozem Zone, and a surplus in the North Caucasus. Against our will, we are being forced to open special departments for the Nonchernozem Zone in the southern VUZ's. This is to some degree a way out of the situation. It is not the best, however: The agronomist should train on the land on which he will be working. It is not surprising that every third

student from the Stavropol Agricultural Institute, including agronomists, and every fourth or fifth student from the Donskoy and Kuban agricultural institutes do not show up at the jobs to which they are assigned. It is obvious that the USSR Ministry of Agriculture, which is in charge of the agricultural VUZ's, should make a more determined effort to eliminate the unjustified disproportions and work more vigorously to organize indoctrinational work among the students.

It is spring once more, and the agronomists are now in the field from morning to evening. Their time has arrived, a time in which every day and every hour tests them, tests the degree of their competency, determination and devotion to the land. And we wish them, sorcerers of the Russian land, large harvests!

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MAJOR CROP PROGRESS AND WEATHER REPORTING

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CROP NUTRIENTS AND YIELDS ANALYZED

Moscow KHIMIYA V SEL'SKOM KHOZYAYSTVE in Russian No 2, Feb 85 pp 15-19

[Article by candidates of agricultural sciences Yu. V. Daragan and L. P. Kolesnikova (Ukrainian Scientific Research Institute for Soil Science and Agrochemistry) and A. A. Yendrizhiyevskaya, Ivano-Frankovsk Agricultural Experiment Stations: "Soil Potentials for Nutrition and Yields"]

[Excerpts] Soddy podzolic surface gleyed soils covering about 500,000 hectares in the UkSSR stretch in a broad band along the northeastern slope of the Carpathians. These soils are distinguished by their acidic reactions, high indicators of hydrolithic and exchange forms of acidity and the presence of sizable amounts of mobile aluminum. Systematic lime and fertilizer applications are essential to improve their fertility [1,2]. It is recommended to use phosphorite meal and gypsum together with lime to chemically improve these soils [3].

Improvement in the fertility of soddy podzolic soils is definitely linked to improvement in their physico-chemical properties.

Thus, the application of differing doses of mineral fertilizers and lime and manure (60 tons per hectare) leads to specific changes in the physico-chemical indicators of soddy, medium podzolized, surface gleyed soils. It is neither advisable or economically justified to apply lime to these soils in doses above the norm for hydrolithic acidity.

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MAJOR CROP PROGRESS AND WEATHER REPORTING

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WHEAT YIELDS AND FERTILIZER APPLICATIONS ANALYZED

Moscow KHIMIYA V SEL'SKOM KHOZYAYSTVE in Russian, No 1, Jan 85 pp 18-19

[Article by V. F. Matviyenko, N. G. Mochalov and A. G. Tomakh, candidates of agricultural sciences, Voroshilovgrad Oblast Agricultural Experiment Station: "The Dependence of Winter Wheat Productivity upon the Time and Method of Mineral Fertilizer Application"]

[Excerpts] Winter wheat is the main food crop in Voroshilovgrad Oblast. It has higher yields and is more responsive to mineral fertilizers than are other grain crops. Grain yields in the oblast increased from 19.6 quintals per hectare in the 9th Five-Year Plan to 21.7 quintals per hectare in the 10th Five-Year Plan, while winter wheat yields increased from 22.3 to 25.6 quintals per hectare. There is a very urgent need to improve the effectiveness of winter wheat fertilization in the oblast.

Research results show that when wheat is planted in ordinary black earth following bare fallow it is most advisable to only apply phosphate fertilizers. If there are other predecessors it is ineffective to apply phosphate fertilizers alone.

Wheat responds well to nitrogen fertilizer following corn for silage or peas for grain and the preplanting application of phosphate fertilizer. Practically identical increments in production are obtained by the following ways of top dressing with ammonium nitrate: scattering on frozen ground, or, after the soil dries out, with the help of a grain disk. Without phosphate fertilizer, ammonium nitrate has a very weak effect upon wheat productivity.

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## MAJOR CROP PROGRESS AND WEATHER REPORTING

### PLANTING PROGRESS IN ODESSA OBLAST SURVEYED

Moscow SEL'SKAYA ZHIZN' in Russian 6 Apr 85 p 1

[Article by A. Soldatskiy, correspondent: "The Planting Is Gathering Speed"]

[Excerpts] Farmers in Odessa Oblast have set high goals for themselves in the final year of the five-year plan -- harvest 3.4 million tons and sell the state 1.6 million tons of grain. Much has been done to reach the goal. However, the weather is always creating new difficulties. Because of the dry fall the plan for planting winter grain crops was not fulfilled and some of the fields require "repair". In addition to all this, the spring also presented its trials. All deadlines passed, but because of the cold it was impossible to work on the fields.

Yu. P. Zhudin, chief of the oblast agricultural administration, explained: "Usually we would have planted up to 500,000 hectares of early spring crops by the end of March. But this year the field work is still not in full swing."

At the begining of April Spring finally came to the area along the Black Sea. Machinery operators at all farms immediately got the equipment out on the fields.

"We need to selectively harrow, cultivate and plant." Said N. V. Struchkovskiy, chief agronomist at the Kolkhoz imeni Kirov, in Belyaevskiy Rayon.

This Spring was not only very late, but also hindered specialists' schedules. Southern farms and those in the Danube area have still not been able to get out on the fields, while those in Ivanovskiy, Velikomikhaylovskiy and other northern rayons are already planting Spring crops at full speed. Machinery operators at the Kolkhoz imeni 40 Years of October are working to make up lost time. S. A. Sazonov, kolkhoz chairman, says, "We are attempting to minimize the time required. In order to conserve moisture we are harrowing day and night."

In short, the farmers have counterposed weather difficulties with precise, smooth work. The pace of soil preparations for planting is quickening by the hour. More than 3,800 units are working to conserve moisture. Previously these operations took 4 days, but now it does not take more than 30 hours. The machinery operators got things done in the allotted time.

Work is being done in a unified complex. After the harrowing and cultivating comes planting. There are 3,120 units in operation. The planting of early crops is coming to an end. However, there is still the very important work in preparing the soil and then the planting of sugar beets, corn and sunflowers.

F. V. Prokhotin, agronomist at the Razdel'nyanskiy Rayon Agricultural Administration, stresses: "We view corn in a special light. We devote 11,000 hectares to corn for grain. Good agronomic conditions have been created for it. The problem is that there are no reliable seeds. The Veseliy Kut and Belgorod--Dnestrovsk grain products combines supplied seeds for the Krasnoyarskiy-303 and Pioneer hybrids, but the quality was poor for all fifth and sixth fractions. The grains are small and weak and it is difficult to count on good sprouting and high yields."

The same complaints were to be heard at other farms and rayons. They have to plant corn on a total of 436,000 hectares. While there is still time it is necessary to correct the situation. One cannot lose a day here.

Success on the spring fields depends upon the coordinated actions of all elements in the agro-industrial complex. Farmers and those who supply seed and fertilizer have a big responsibility in the struggle for high yields. The smallest oversight can turn into a sizable shortfall in agricultural output. As they say, a spring day can feed you for a year.

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MAJOR CROP PROGRESS AND WEATHER REPORTING

FERTILIZER TRANSPORT AND DISTRIBUTION PROBLEMS

Minsk ZVYAZDA in Russian 7 Mar 85 pp 1-3

[Article by A. Shagun (Soligorsk, Slutsk, Minsk): "Warehouses at Kaliy Are 'Bursting', Yet Deliveries of Mineral Fertilizer to the Country's Grain Farmers Are Disrupted Right Before Sowing"]

[Text] I have had occasion to visit the mines, concentration mills, construction sites, and production shops of Beloruskaliy many times. You can hardly take in such a huge mining industry. Fifty percent of the country's potassium fertilizer is produced by the Soligorsk miners and refiners, who supply mineral fertilizer to the whole European part of the USSR and export it to countries of the socialist commonwealth.

This time, however, the industrial "complex" of the republic's mining center was strangely quiet.

"We're standing still," said L. I. Tomchin with a bitter sigh--he's the head of a mine in Mining Administration No 2. "Normally we produce 31,000 tons of sylvinitite a day, but we're putting out only 10,000-12,000."

Tomchin's statement is elaborated by Ya. I. Kuz'min, the director of Mining Administration No 2, and A. P. Makal', chief of the concentration mill: "Since the start of the year we've frequently failed to fulfill the plan."

What's the matter? In the association they showed me a whole file full of urgent telegrams requesting immediate steps to improve and to increase shipments of mineral fertilizer. All they can do in Soligorsk is spread their hands helplessly. A. F. Yanushevskiy, head of the planning-economic department, remarks pointedly: In February of this year we shorted customers by 75,000 tons of potassium oxide.

And the lag is snowballing. In 4 years of the 11th Five-Year Plan, backlogs of potassium fertilizer deliveries added up to hundreds of thousands of tons. We cannot bring ourselves to accuse the Soligorsk miners of not knowing how to work, or of having forgotten. The warehouses at Kaliy are bursting with mineral fertilizer. The walls of the mighty structures cannot hold up, sagging under tens and hundreds of tons of the salt. It's not surprising. The warehouse facilities of Mining Administration No 2 now hold about 70,000 tons of potassium concentrate--twice the normal amount. The same alarming situation is developing throughout Beloruskaliy. As A. I. Khomich, deputy general

director of the enterprise, told us, 305,000 tons of potassium fertilizer are lying like a dead weight in the warehouses. Not only are fertilizer deliveries to the country's agriculture effort disrupted right before field work begins, but fulfillment of the annual plan of production of sylvinit and products made from it is placed in jeopardy.

The efforts of the potassium workers are being hampered by the railroad. The enterprise regularly fails to get the cars it has coming. Consider these facts: In February alone the association failed to receive 1,747 cars to haul mineral fertilizer and 800 cars to haul industrial salt [tekhnicheskaya sol']. It was about the same in January.

The railroaders explain the paradox by what they call objective circumstances. Long hard freezing spells and snowdrifts have made it difficult to run the transport conveyor as it should be run. But after all, the bad weather is past, and winter is giving way. The breath of spring is blowing stronger with each passing day. Up-to-date data indicate that the work of the Belorussian railroaders has improved markedly. But this doesn't affect the Soligorsk association. At our request, Beloruskaliy dispatchers M. S. Ivanov and I. V. Kurlovich summarized it: In late February and early March the Mogilev department of the Belorussian Railroad regularly failed to deliver 90 cars. This practice, unfortunately, has become chronic. Last year as well, mineral fertilizer deliveries to numerous customers were disrupted for the same reason. As a result, surplus stocks of fertilizer have been carried over to this year. The excellent efforts of the miners in January and February only added to stockpiles. In fact, the warehouses are now packed to the rafters. It has created a tough situation for the collectives.

The correspondent was met in Mining Administration No 2 by the following miners, who are well known all over the country: combine brigade leader U. V. Seraoki, a deputy to the BSSR Supreme Soviet and delegate to the 26th CPSU Congress; combine brigade leader A. T. Klimenkov, a deputy to the USSR Supreme Soviet, 10th convocation; and hydraulic complex brigade leader A. K. Grachev. They spoke with excited agitation as follows.:

Seraoki: Our collective took on higher obligations for 1985--to dig 56,000 tons of sylvinit over and above targets. We're not aiming at this high indicator just to set a record. The country's agriculture is not getting enough potassium fertilizer. Recently, thrice Knight of the Order of Labor Glory I. R. Sinitskiy, the famous potato farmer, came to me and pleaded: "Please help us, ship us some potassium, we don't have enough to produce the planned harvest." We'd be happy to ship additional mineral fertilizer to him and to others, but we have been idle for days because of the lack of rail cars.

Klimenkov: We have no problems as to how and by what means to fulfill the plan. The whole brigade aims to do so; we have always worked by the slogan: Not a minute's idleness. Yet, because of the railroaders, sometimes we stand around for whole shifts at a time.

Grachev: All the safety equipment in our mines depends on the rate of movement of the workface. That way we get away from rock pressure. But the

tunneling complexes are standing idle now, and the cost of additional reinforcement of the shafts and drifts is going up sharply. The main equipment can't be turned off either, and just one motor driving the main fan of the mine's ventilation system consumes 4,000 kwh. The hydraulic mining complex used to dig the sylvinite, which is assigned to our brigade, is priced at 105 million rubles. Not even a quarter of the capacity of this costly piece of equipment is being utilized. There are moral as well as material costs. They are difficult to compute, but they cannot be ignored.

These alarming observations of the miners certainly ought to be heeded in the Belorussian Railroad, the USSR Ministry of Railways, and the USSR Mineral Fertilizer Production Ministry. This is not the first year, we repeat, that the country's largest enterprise has suffered from such shortcomings in the supply of rail cars. The severe winter this year only exacerbated old woes and showed that we can't go on like this much longer. There is a substantial discrepancy between the production of mineral fertilizer and the capacity to sell and deliver it to numerous consumers. Working in such a "pinch" has an extremely bad influence on the collective. They would be glad to fulfill the plan and boost the output of sylvinite, but they can't. The warehouses cannot accommodate it, and you can't just pile it up out in the open: the technical control department won't allow it, because bad weather would ruin the costly product.

There is another aspect to Beloruskaliy's transport problem. Neither the railroad people nor association officials like to talk about it, because it points up the faulty work style of both partners, especially the transport workers. It has to do with utilization of the car rail fleet. Mineral fertilizer stocks in the enterprise's warehouses would be much smaller if the cars brought in to haul the potassium were utilized in a timely and effective manner. Beloruskaliy dispatcher I. V. Kurlovich stated that 70 or 80 of them come in every day in faulty condition, including broken end walls [tortsovyye stenki], no floors, hatches that don't work, broken doors, and so on. Some of them couldn't be used to haul lumber, let alone bulk potassium. It's no accident that some of the defective cars wander around the loading areas of all the mining administrations like the famous "Flying Dutchman." That vessel, it appears, was just a phantom. Broken rail cars, on the other hand, can be inspected, checked out, and determined to be unfit for hauling potassium. But that doesn't help. Some of these "skeletons," as workers in the association's track shop have aptly called these dilapidated conveyances, are moved out past the mining administrations' tracks, and others appear in their place. Enough of this "leap-frog." The broken rail cars do more than hinder the loading personnel and get in the way. Because of the present shortage of freight conveyances they reduce the car fleet turnover and "eat up" the association's loading and unloading resources.

What's surprising is that this mismanagement flourishes under the guise of good intentions--speeding up deliveries of mineral fertilizers to the customers. Let's analyze the "technology" of it. The Slutsk railroad station is supposed to act as a barrier to defective rail cars. A special post to prepare the cars has been built for this purpose specifically for Beloruskaliy



Association's needs. Workers there are supposed to provide repairs and preventive maintenance. Supposedly, they have been overfulfilling their plans. Frequently, however, the quality of work cannot stand up to criticism. In January, for example, foreman A. A. Brodskiy's shift let 17 defective cars get through, and foreman A. A. Maz'ko's let 13 through. It appears this negligence has been "documented," for the cars were sent back to the Slutsk post. Some of the defective cars, however, never get there. Post brigade leader I. A. Samusevich has stated that workers on duty at the Slutsk gravity hump have sent empties arriving from Osipovich and Baranovich directly to Soligorsk, bypassing the post. The railroaders of Soligorsk Kaliy Station No 3 are obliged to correct the shortcomings and indifference of their colleagues. It is there, in the final analysis, that the so-called "skeletons" should be caught and not allowed to be sent to the potassium combines. But the local transport workers hardly trouble themselves with that. The potassium workers are swamped with defective rail cars. Forced into a corner, they take what they can and try to load them. Following the example of the Moscow people, in particular, they have decided to repair the defective cars themselves. A group consisting of several men has been created in Mining Administration No 4. Yet no real businesslike collaboration with the railroaders has resulted. With its primitive methods, Beloruskaliy is not capable of bringing some of the cars up to snuff. The "skeletons" keep showing up in the loading platforms of the enterprises and do nothing but increase the unproductive use of the rolling stock. According to A. I. Khomich, the association's deputy general director in charge of transport, and L. D. Slizko, chief of the railroad shop, the potassium workers tried to make a deal with G. Ts. Belousov, the stationmaster of Kaliy No 3, to collaborate with the railroaders on culling defective cars there rather than allowing them to be sent needlessly around to the various combines. He demurred on grounds of prohibitory directives and orders....

In short, everything is at a standstill. The potassium workers have failed to manifest the needed principles in resolving the problem. And the railroaders, apparently, have become accustomed to the procedure. They send their "Flying Dutchmen" to their clients on the principle "If you want, load them"--thus starving them into submission. Association transport workers S. Chizh, V. Kudin (yardmasters), M. Krukovich (a loader), and A. Lyagush and A. Dubovskiy (engineers) have stated that the very same defective cars have gone through the loading areas several times each. Finally, against regulations, the cars have been loaded with industrial salt rather than fertilizer. The cars with their damaged innards depart, rumble over the rails, and their valuable cargo leaks through the cracks. Recently such a defective mineral car was loaded in Mining Administration No 2, and it didn't even make it to the scales. The potassium leaked out onto the rails, and fertilizer shipments were disrupted for a total of 8 hours.

And when the potassium workers, for all their trying, can neither patch up nor load a particular car that is totally dilapidated, the railroaders cleverly find a way out. They send it to haul heavy freight such as ferroconcrete slabs, flooring, bricks, peat briquettes, and so on. After all, there are plenty of enterprises of various profiles in the radius of the Soligorsk transport hub, and all of them need cars, cars, and more cars. This kind of demand accounts for the defective cars.

A paradox results. Recently a meeting of the Soligorsk City Peoples Control Committee severely reprimanded a number of officials, including some from Beloruskaliy Association, for taking too long to unload several cars.

But in the case of the defective cars, which have been hauling air for some time, no one can be found to blame. "That's the way things go," say the officials by way of excuse. With that attitude it's easy to close one's eyes to a great deal. On the gravity hump of Slutsk Station, for example, they beat and damage the end walls of the cars during shunting operations. Is that good management!? The whole system of rolling stock operation and maintenance is reduced to this: The client loads it, the railroad carries it. But who is to give "shelter" to the empties, get them into shape--cars that come into the country's biggest enterprise? The question remains an open one.

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CSO: 1811/33

## MAJOR CROP PROGRESS AND WEATHER REPORTING

### SHORTCOMINGS IN FERTILIZER STORAGE

Minsk ZVYAZDA in Belorussian 26 Feb 85 p 2

[Captioned cartoon by A. Korshakevich, with commentary: "Mineral Fertilizers Are Stepchildren"]

[Text] The Staragradski and Valyntsy sovkhoses in Kormyanskiy Rayon are not storing mineral fertilizer properly. A lot of the fertilizer is kept in unsuitable facilities. The warehouse belonging to Field Brigade No 3 on Valyntsy Sovkhoz is in terrible condition. No one cares much about the fertilizer on Kolkhoz imeni Engels in Zhlobinskiy Rayon, either. Eight tons of ammoos have spoiled there.



"When are we ever going to repair the warehouse?"

"What for? Fertilizer is meant to decompose!" [a play on words]

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CSO: 1811/33

## MAJOR CROP PROGRESS AND WEATHER REPORTING

### BRIEFS

UKRAINIAN PLANTING DETACHMENTS--Kiev--Following farmers in the Crimea, grain growers in Odessa and Transcarpathian oblasts and a number of farms in the central oblasts of the Ukraine began the planting of grain, alfalfa and grasses. This season about 13,000 mechanized, comprehensive detachments have been formed in the republic. Many of them have been converted to collective contracts. Everything necessary for crop raising has been placed at the disposition of these units. They are guided by technological charts worked out with a view to the features of each field. The planters are reexamining their initial plans in order to gain time and plant within the best deadlines. At the Sakskiy Sovkhoz in the Crimea, the number of units has been increased and each equipped with three grain drills. Equipment here is working during the night. The work acceleration is helped by the readiness of towed equipment and tractors. More than 6,000 mobile machine shops and diagnostic facilities assist in reducing idle time due to breakdowns. More than 8,000 engineering and technical workers from Sel'khoztekhnika will be working directly on the farms during the massive field operations. It has been decided to complete the planting of early grain crops within a brief time -- 40-50 hours. [By TASS] [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 5 Apr 85 p 1] 11574

AGRONOMIC CHARTS USED--Odessa--The oblast agrotechnical service has given itself the task of significantly improving fertility. In order to do this, an agronomic chart has been compiled at farms for each field. These charts give the field's configuration, area, the results of agronomic surveys, make recommendations for methods of working the soil and show the crops which will be planted. Such charts have been compiled for all fields of farms in Artsizskiy Rayon. [By A. Soldatskiy] [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 23 Mar 85 p1] 11574

AIRCRAFT APPLY FERTILIZER--Kiev--Aviators in the Ukraine have begun the massive top dressing of winter crops and perennial grasses. The farmers' winged assistants have completed this work on the first million hectares of agricultural land. This year aviation applications of chemicals will cover 15 million hectares. Aerobiological methods of plant protection will be widely used for the first time. Flight crews in the Ukraine are also helping farmers in the North Caucasus, the Volga area and Uzbekistan. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 12 Apr 85 p 1] 11574

2 July 1985

FIELD WORK UNDER WAY--Zaporozhye--Kolkhozes and Sovkhozes in Zaporozhskiy, Orekhovskiy, Pologovskiy and Novonikolayevskiy rayons were the first in the oblast to actively engage in field work. They have already harrowed more than 300,000 and cultivated 50,000 hectares of fallow and late-fall ploughed fields and planted the first thousands of hectares of barley, perennial grasses and peas. The winter crop fields are being "repaired". Spring barley, peas, oats and millet are being undersowed and resowed. At a number of farms specialists and collectives of contracting units are boldly conducting joint operations. [By N. Ivanchenko] [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 12 Apr 85 p 1] 11574

EARLY CROP PLANTING--Simferopol'--Yesterday Crimean machinery operators began the planting of early crops. Because of the late spring, work was organized on an around-the-clock basis. [Text] [Moscow TRUD in Russian 2 Apr 85 p 1] 11574

SEED PREPARATION PROGRESS--Orel--The crop growers of Orlovskiy, Bolkhovskiy and Dmitrovskiy rayons in Orel Oblast are using only first- and second-grade seed for the spring planting. Special teams of machine operators for cleaning seed operated on all the farms there. Their work was assessed according to the end results, on the basis of the quality and quantity of output. The experience of the outstanding collectives in organizing the work has been passed on to all the oblast crop growers. [Text] [Moscow TRUD in Russian 6 Feb 85 p 1] 11499

SORGHUM SEED RECEIVED--Vladistok--A large shipment of sorghum, a feed crop, seed has arrived from Rostov Oblast. It is planned to plant at least 6,000 hectares to this crop in the spring. [Text] [Moscow TRUD in Russian 19 Feb 85 p 1] 11499

NEW BUCKWHEAT VARIETY SEED--Lvov--Shipments of seed material for new varieties of buckwheat have been dispatched to farms of the Russian Federation and the Ukraine by specialists at the Scientific Research Institute of Crop Cultivation and Animal Husbandry in the Western Regions of the Ukrainian SSR. This season, more than 300,000 hectares of land in the nation will be planted with buckwheat seed from varieties developed in the Ukraine. [Text] [Moscow TRUD in Russian 20 Feb 85 p 1] 11499

TOP-GRADE SEED FOR PLANTING--Ulyanovsk--The grain growers in Pavlovskiy Rayon are making thorough preparations for the heavy work season. All of the seed for the farm crops meet the requirements for top-grade seed. This was confirmed by a presowing check for germination rate, moisture content and purity of the planting material. [Text] [Moscow TRUD in Russian 21 Feb 85 p 1] 11499

SELECT, ZONED SEED PREPARED--Tambov--The crop growers on farms in Tokarevskiy Rayon have prepared select seed from zoned varieties for spring. All of the grain meets first- or second-grade specifications. [Text] [Moscow TRUD in Russian 2 May 85 p 1] 11499

NEW VARIETY SEED READIED--Penza, 13 [Mar] (TASS)--Oblast kolkhozes and sovkhozes have completed the preparation of the seed for planting. It conforms to high planting specifications. In accordance with the scientifically based, zonal crop production system, promising new grain varieties will occupy one fifth of the total area. These include such varieties as the Kutulukskaya, Kharkovskaya 2 and Bezenchukskaya 139 spring wheat varieties, for example. They provide up to 5 quintals of additional grain from each hectare over the yields from previously zoned varieties. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 14 Mar 85 p 1] 11499



SEED FOR EASTERN PART OF OBLAST--Orenburg, 18 [Mar]--Workers in the eastern, virgin-land part of the oblast, where the fields were subjected to drought last summer, have rapidly hauled a large shipment of seed from the railroad station. It came from farms in Altay Kray. All of this grain has been cleaned, graded and brought into conformity with high planting specifications. The Tselinnaya-20, a promising variety of strong wheat, accounts for a large portion of the seed received. A total of around 350,000 hectares in the Orenburg area will be planted with high-quality seed received from state stocks. [By SEL'SKAYA ZHIZN' correspondent I. Gavrilenko] [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 19 Mar 85 p 1] 11499

PROMISING VARIETIES FOR LATVIA--Riga--Seed from promising grain varieties has been brought into complete conformity with high planting specifications in Latvia. The varieties will account for two thirds of the grain planted in the total crop structure. [Text] [Moscow TRUD in Russian 10 Mar 85 p 1] 11499

SEED PROCESSING PLANTS--Zhitomir--Seed processing plants, which have begun operating on the Ukraina Kolkhoz and the Kolkhoz imeni Kuybyshev, have become reliable partners of the grain growers. This spring, only first-grade seed from good reproductions will be planted for the spring crops in the oblast. [Text] [Moscow TRUD in Russian 10 Apr 85 p 1] 11499

SEED STOCKS, RESERVES PREPARED--Pskov, 26 [Feb]--The noise of machinery has died down at the grain cleaning station on Krasnoye Znamya Kolkhoz in Novosokolnicheskiy Rayon. The preparation of planting material for the spring crops has been completed there. Laboratory tests have shown that all of the grain, pulse and perennial grass seed basically meet first-grade requirements. Seed stocks on most of the farms in Pskovskiy, Ostrovskiy, Gdovskiy and Porkhovskiy rayons has been brought into conformity with the high specifications. Carry-over and reserve stocks of planting material have been created in most of the oblast rayons. [By SEL'SKAYA ZHIZN' outside correspondent Z. Vasil'yev] [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 27 Feb 85 p 1] 11499

FIRST-, SECOND-GRADE SEED READIED--Orel, 27 [Feb]--The seed testing laboratories have concluded that almost all of the planting material in the oblast measures up to the standard with respect to germination rate and moisture content. Many farms in Orlovskiy, Bolkhovskiy and Dmitrovskiy rayons won prizes for seed quality in the All-Russian Socialist Competiton. Practically all of the seed stocked in Livenskiy, Verkhovskiy, Mtsenskiy and Glazunovskiy rayons has been brought into conformity with first- or second-grade specifications. The seed is also in good condition on farms in Maloarkhangelskiy and Kromskiy rayons. [By SEL'SKAYA ZHIZN' outside correspondent I. Mironov] [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 27 Feb 85 p 1] 11499

THOROUGH PREPARATIONS FOR PLANTING--Stavropol, 3 [Apr]--Recent weather has delayed the beginning of the spring planting. The workers in Kochubeyevskiy Rayon have taken advantage of this time to test the seed quality once more. A public inspection has shown that all of the planting material meets first-grade requirements and has been well preserved on the Kolkhoz imeni Oktyabr'skaya Revolyutsiya, the Polyarnaya Zvezda and Kaz'minskiy kolkhozes, the Rodina Sovkhoz and others. With a projected need of 2,160 tons, the farms have 2,333 tons of high-quality

seed. The inspection brigades have checked on the storage of toxic chemicals, the organization of seed treatment and the availability of equipment and special clothing. RAPO [rayon agroindustrial association] specialists have also begun supervising the distribution of seed plots for the new crop. [By SEL'SKAYA ZHIZN' correspondent S. Timofeyev] [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 4 Apr 85 p 1] 11499

ATTENTION TO SEED QUALITY--Ulyanovsk, 9 [Apr]--The crop growers in Ulyanovskiy Rayon are completing preparations for the spring planting. Special attention is being given to the seed. The Prigorodnyy Sovkhoz and the Kolkhoz imeni Sverdlov have brought the seed into conformity with the standard for first-grade planting material. The other farms also have high-quality seed. The treatment of the planting material with toxic chemicals has been started throughout. The other farms are following the example of those out front. [By SEL'SKAYA ZHIZN' outside correspondent M. Belousov] [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 10 Apr 85 p 1] 11499

QUALITY GRAIN, PULSE CROP SEED--Arkhangelsk 13 [Apr]--High-quality grain and pulse crop seed has been stocked for planting on farms in Velskiy Rayon. More than 92 percent of it meets the specifications for first- or second-grade seed. Vilegorskiy, Kargopolskiy and Ustyanskiy rayons also have high-quality planting material. Seed production for grain and perennial grasses has been improved in the oblast in recent years, and this has made it possible to increase the yield from the field crops. [Telephoned report by V. Shatrov] [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 14 Apr 85 p 1] 11499

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POST HARVEST CROP PROCESSING

ORGANIZATION OF SUGAR BEET PROCESSING IN THE UKRAINE CRITICIZED

Specific Discrepancies Highlighted

Kiev PRAVDA UKRAINY in Russian 4 Jan 85 p 3

/Article by G. Kravchenko, chief technologist at the Ilunetskiy Sugar Plant; Ye. Bodnar', senior engineer for the Vinnitsasakharprom Production-Agrarian Association and N. Baras', correspondent for PRAVDA UKRAINY: "Areas for Discrepancies"/

/Text/ The special purpose all-round scientific-technical program Sakhar has been defined as being of great importance to Vinnitsa Oblast. Indeed the proportion of sugar produced here is considerable not only from the standpoint of the oblast's overall economic balance, but in fact it is extremely substantial also from the standpoint of the republic and the country.

How is the program being realized within the Vinnitsasakharprom Production-Agrarian Association?

A great deal of work has been carried out in almost every one of its sections. Since the beginning of the five-year plan, approximately 100 automatic centrifuges with programmed control have been installed at 16 of 39 plants, more than 50 principal production sectors have been automated and more than 100 clamp forming machines have been mastered additionally for the unloading of heavy trucks and motor vehicle trains and the same number of PTS-77 hydraulic tractor loaders. Last year, various projects were built at beet receiving points at the Brodetskoye, Derebchinskiy, Pogrebishche and Chechelnik plants. Turn-around float areas have been installed at the Kirnasovkz-II and Sokolovski plants. A progressive technology for squeezing pulp and returning pulp-compressor water into production, an efficient system for recovering and sorting the beets and a technological system for purifying the juice with cold-hot defecation have been introduced into operations at some enterprises.

Over a period of 4 years at the Turbov Sugar Plant, as borne out by economist computations, a savings of more than 300,000 rubles (or in physical terms -- 1,348.3 additional tons of sugar) was realized as the result of the carrying out of measures called for in the program. This result would have been considered to be a considerable success but for one circumstance: just as in the past, the sugar losses were high at the plant.

This begins, just as in the past, with a beet receiving point, where owing to a shortage of chemical preservatives and covering materials the technology for the acceptance and storage of the roots is not being observed completely. Considerable beet contamination is having an effect -- on some days during this current season, up to 30-40 percent. But the traditional problems of this enterprise are especially alarming: coarse violations of the technical processes, frequent plant stoppages during beet processing operations, as a result of which the effect from carrying out the measures called for in the section entitled "Improving the Beet Processing Technology," which should have reduced production losses to a minimum, turned out to be practically zero.

The return from implementation of the all-round Sakhar Program and for other measures carried out by the enterprise was not much higher. At both sugar plants in Nemirovskiy Rayon and also in Stepanovskiy and Gaysinskiy rayons, the sugar yield amounted to only 10-11 percent. Sugar production per hectare of beet field at only 13 of the 39 enterprises exceeded the level for 1983.

Much of which the inspection brigade encountered at Turbov also occurred at the Ilinetskiy Sugar Plant, considered to be one of the best in the association. True, a considerable portion of the measures planned from the Sakhar Program was carried out here. Sugar production increased. But, just as in the past, the beet receiving point remains a bottleneck. Nor is the problem simply one of a lack of a floating area and hydraulic conveyers, which have become traditional features at other plants (moreover, at Ilinetskiy they learned how to manage without them), but rather it has to do with not ignoring use of the progressive technology for the acceptance and storage of beets. Thus, of 60,000 tons of roots placed in clamps for extended storage, only one sixth of this amount was treated with chemical preservatives. Forced ventilation is being employed for only a portion of the beets at the plant.

An even greater discrepancy was uncovered during a review of facts concerned with the commencement of construction at the plant of a dissolving unit for chemical preservatives and a dispatcher's point. Their introduction into operations, according to the calculations of sugar refiners, must accelerate the carrying out of measures associated with the "Storage" Section. This was indicated in a report for the inspection brigade, signed by the general director of the Vinnitsasakharprom Association B.Ye. Zhmaka.

"What kind of construction is going on there?" asked the deputy director of the plant for raw materials Yu.Ye. Vrublevskiy, in reply to our questions. "Indeed, nobody has allocated funds. Certainly, to the degree that it is possible, use is being made of the old method for preparing chemical preservatives, but it is of low capability."

The discussion concerning similar discrepancies in carrying out the Sakhar Program, but on a scale for the entire association, took place considerably prior to the commencement of the present season -- at a party-economic aktiv in the oblast. At that time it was noted that the enterprises of Vinnitsasakharprom were not fulfilling their tasks with regard to raising the capabilities, they were not making use of considerable capital investment amounts and they were not realizing a proper return from the money invested. But the season is coming to a close and, as you can see, there has been no



change with regard to these discrepancies and problems. Just as in the past, no use has been made of the considerable resources available for increasing the capabilities of the sugar plants, improving the beet processing technology and ensuring a strict regime for thrifty operations. The result of such "spinning of wheels" is as expected -- almost no reduction in Vinnitsa beet losses during storage and processing.

#### Measures Enacted To Improve Operations

Kiev PRAVDA UKRAINY in Russian 16 Apr 85 p 2

/Article by Deputy Minister of the Food Industry for the UkSSR A.Yu. Prilipko: "Response To Article in PRAVDA UKRAINY Entitled 'Areas for Discrepancies'"/

/Text/ We are reporting in connection with the article entitled "Areas for Discrepancies" (4 January: in connection with the conversion carried out in recent years over to the machine method for harvesting beets, a considerable reduction has taken place in their quality. The quantity of severely damaged beets has increased to 15-30 percent, the overall degree of contamination has been raised to 13-15 percent and an increase has taken place in the amount of green bulk and weed residue being found in a heap of beets. After 5-6 days of storage, such raw materials commence to spoil. This leads to a reduction in the productivity of the plants, to an increase in irreversible sugar losses in production and in the sugar content in molasses and to a deterioration in the quality of prepared products.

A progressive technology for the acceptance and storage of raw materials was introduced into operations at 14 enterprises of the Vinnitsa Production-Agrarian Association of the sugar industry for the purpose of ensuring preservation of the technological qualities in the beets and maximum production of sugar from them. In 1985, five more enterprises will operate on the basis of this technology.

In 1984 the tasks of the Sakhar Program were fulfilled by the sugar plants in Vinnitsa Oblast. The actual economic effect realized from this program was lower than that planned, since the additional capabilities introduced prior to the end of the year will be used during the next production season. In addition, unsatisfactory work by a number of enterprises, including the Turbov and Gaysin plants, took its toll. For production shortcomings and neglect during the previous production season, the leading workers of the mentioned enterprises were called upon to account for their actions from both a disciplinary and material standpoint.

At the present time, the UkSSR Minpishcheprom /Ministry of the Food Industry/ is undertaking measures aimed at improving the work of enterprises of the Vinnitsa association. For the purpose of furnishing practical assistance at the sites, responsible workers and specialists of the UkSSR Minpishcheprom have been assigned to plants which have performed in an unsatisfactory manner.

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## POST HARVEST CROP PROCESSING

### GRAIN THRESHING METHODS IN TURGAYSKAYA OBLAST

Tselinograd FREUNDSCHAFT in German 27 Apr 85 p 2

[Article by Woldemar Hirsch, section chief in the State Committee of the Kazakh SSR for Labor: "Does the Collective Farm Need Its Own Threshing Floor? An Experiment Promising Great Profit"]

[Text] The major directions of economic and social development in the USSR during the years 1981-1985, and for the period to 1990, aim at ensuring uniform planning and proportionately balanced development of all sectors of the agrarian and industrial complex. The tasks consist in better utilization of production resources and in lowering losses of agricultural products during their first processing, storage, and delivery.

In this regard, the experiment carried out on the initiative of the party, state, and economic authorities of the region of Turagaj deserves attention. It concerns the introduction of a new method of grain transport directly from the combine-harvester to the collection plant. It consists of eliminating from the traditional chain of field--threshing floor--grain storage the intermediary element, the threshing floor.

On what is this decision based?

The Turgaj region is a chief grain producer in Kazakhstan. Here, 106 sovkhoses and kolkhozes [collective farms] grow grain on a total area of over 2 million hectares. As production increases, the problem of reducing losses in the grain transport from the field to the state silos becomes ever more important, including the reduction of labor expenditure in primary processing.

Let the facts speak for themselves.

In recent years, the material-technical basis for the processing and storing of grain in the agricultural enterprises of the region has been significantly strengthened. But it is not yet ideal by any means. The region needs 420 grain processing places, but has only 393. If one takes into consideration that most of them are inefficient plants, the actual requirement is much higher. The agricultural plants have no drying equipment. About 30 percent of all grain-cleaning machines in the sovkhoses are in need of repairs. Repairs are made difficult through the constant lack of parts and components.

In recent years, heavy trucks have been increasingly used in grain transport. But their unloading on the threshing floors is complicated by the fact that the agricultural enterprises do not have efficient unloaders.

Because of the low level of work automation on the sovkhoz threshing floors, additional labor must be employed for the manual handling of grain. The area's total requirement of additional labor during harvest time amounts to 1,500 to 2,000 people.

The grain collection enterprises work under much better conditions. The equipment and capacity available to them permit them to process 2,937,000 tons of grain per season; last year, only 1,141,000 tons required processing. The grain collection enterprises also possess efficient drying equipment. It can dry up to 1,559,000 tons of grain; during the last season, however, only 146,000 tons were processed in this manner. Thus the grain-cleaning machines were utilized at a level of 68 percent, the drying equipment at only 43 percent.

The intermediate element between field and grain silo thus causes additional losses in processing, storage and transport. These losses are especially high during years of inclement weather, particularly where threshing floors have no roofs.

Based on these factors, it was decided to try an experiment. In 1979, the first to start was the Sovkhoz "60 years of Comsomol," by processing part of the threshed grain on its own threshing floor, and shipping the other part directly from the combine-thresher to the grain collection enterprise. What was the result of the experiment?

In 5 years, the average expenditure for processing 1 ton of grain on the sovkhoz threshing floor amounted to 5.56 rubles, and only 1.64 rubles in the first grain silo. By transporting 74,578 tons of grain directly from the field to the grain collection point, the sovkhoz saves 305,000 rubles.

In 1983, five additional sovkhozes--"Sarechny," "Otradny," "Enthusiast," "Majak," and "Molodjoshny"--participated in the experiment.

Here are the results: from the sovkhoz threshing floors, 76 persons were freed for other work. In five sovkhozes, the grain transport distances were shortened; in "Sarechny" and "Otradny", the distance was lowered by 7 kilometers, in "Enthusiast" by 4 km, in "Majak" by 11 km, and in "Molodjoshny" by 10 km. In these agricultural enterprises, the need for trucks was also lowered by 82. Through reduction of transportation time, 12 to 15 days were saved. Processing the grain in the district grain silo also brought an additional profit of 270,000 rubles per year.

The experience of the cited sovkhozes favors expansion of the experiment, and extending it to other collective farms. According to calculations, direct shipping of the grain to silos would reduce--in about half of the agricultural enterprises--the need for additional labor from other economic sectors by some 6,000 to 7,000 people, and transportation needs would be lowered by about 500 to 600 vehicles.

Spreading this method in the other regions of Kazakhstan, and in other republics, would result in economic savings of several million rubles. But this is only one side of the matter. This new method created totally unexpected problems. The experiment carried out in the region aggravates economic relations between consumers and producers, which become a stumbling block for direct delivery of the grain from field to silo.

This refers particularly to the accounting of the grain which the sovkhozes deliver to the silo. When accepting the grain, the collection center marks down the price because of third-party storage and higher grain moisture. The processed grain is of better quality and, therefore, commands a higher sales price. This is unfavorable for the producers and has a negative influence on the economic situation of the sovkhozes and kolkhozes. This was particularly strong in the case of direct delivery of the grain from field to silo without previous processing on the threshing floor.

These regulations were changed in 1984. The Ministry of Procurement of the USSR directed a special order to the procurement ministries of the union republics stating the following: if the grain obtains a different, higher-priced classification due to processing in the collection plant, the price difference will be added to the settlement prices. Fifty percent of these additional sums go to the collective farms, 50 percent to the collection plant. But this regulation lowered the interest of the collection plants in upgrading the grain to the necessary condition, particularly if it was third-party storage and had a high level of moisture. Computations showed that the collection plants have almost no net profit under such circumstances, and that payments to the material incentive fund would drop by 65 to 75 percent.

There is a further problem. At present, the waste after grain-cleaning remains at the collection place. In the case of grain delivery from the field--threshing floor--silo, i.e., after processing the grain on the threshing floor, there is little waste. In the case of direct delivery, the sovkhoz' fodder balance drops, since the waste scraps remain in the collection plant. In this respect, the opinion of specialists and scientists is informative; they believe that useable wastes ought to be returned to the agricultural enterprises, or be delivered to mixed feed factories so that they can supply the collective farms with their products, according to the amount of agricultural products delivered by the farms.

Thus grain delivery according to the method field--silo offers a number of advantages compared to the traditional procedure of field--threshing floor--storage silo. But continuation of the experiment, and its further extension, needs a thorough scientific study of the problem, and elaboration of concrete recommendations.

The correct solution of these questions will increase the interest of grain producers and grain collectors in procuring high-quality grain and result in a considerable economic effect.

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LIVESTOCK

KIRGHIZ CONFERENCE CONSIDERS DAIRY LIVESTOCK RAISING TASKS

Frunze SOVETSKAYA KIRGIZIYA in Russian 30 Apr 85 p 1

[KirTAG article: "Dairy Farming--Intensive Development"]

[Text] The topic for discussion at the conference of workers of the agro-industrial complex of rayons under the jurisdiction of the Kirghiz SSR, which was held on April 29 in Frunze, was the intensification of dairy-animal husbandry and consolidation of its feed base. Heads of party, soviet and Komsomol agencies as well as workers in public health, communications, everyday services and consumers' cooperative societies of the Chu Valley and also heads of ministries, agencies and scientific institutions of the Kirghiz SSR were invited to the conference.

P. I. Naumov, secretary of the CPKlSSR Central Committee, opened the conference.

T. U. Usubaliyev, first secretary of the CPKlSSR Central Committee, gave a major speech.

Another speaker was A. Duysheyev, chairman of the Kirghiz SSR Council of Ministers.

In the view of the April (1985) Plenum of the CPSU Central Committee, implementation of the Food Program is the immediate tasks that demand special attention. On the basis of the mandate, the workers of the Kirghiz agro-industrial complex ought to accomplish the further upgrading of all branches of agricultural production. In particular it is essential that the productivity of livestock raising and land cultivation be increased and that the average milk yield per forage cow be raised to 3,000 kilograms, besides which a one-and-one-half-year supply of coarse and wet feed should be established--in this very year.

One of the chief reserves available for solving this problem is bringing the substandard livestock-raising agricultural units up to the level of the leading ones. Toward this end, it is essential to employ actively, above all else, as an effective instrument, economic accountability. In this very



year all dairy farms ought to be brought to the point where the transition to economic accountability is made and the collective contract is established.

One important problem is improvement of the quality of dairy production. The kolkhozes and sovkhozes of rayons under the jurisdiction of the Kirghiz SSR have the potential--only partially fulfilled by many farms--of bringing only first-grade milk to the state for sale.

Deep concern is demanded by the organization of a rational and scientifically based feed system as well as continued strengthening of the entire feed base for animal husbandry. A significant effect ought to be shown by exploitation of such reserves as adding yeast to feed, introduction of special "transitional" feeds, more rational use of summer pastures, extensive introduction of combined and interstitially sown crops and uninterrupted working of the green conveyor. All feed-production links this year face the task of obtaining not less than 5 top-quality harvests of perennial grasses and gathering 100-120 quintals of dry hay per hectare. The quality of feeds being prepared should be the special concern of party, soviet and farm agencies, managers of kolkhozes and sovkhozes and all feed procurers.

Herd reproductivity and breeding selection ought to be brought up to a higher level than at present. There is much to be done in improvement of veterinary service.

At the conference, reference was made to the fact that the cultural and everyday, medical and shopping services for animal raisers must be improved by all possible measures.

There was also disclosure of the claims made by partners in the agro-industrial complex who work along with the animal raisers--procurement, processing and service enterprises whose words point to progressive forms of purchasing and transporting products but who in fact are in no hurry to establish them. The collectives of State Commission for Agricultural Technology associations in the rayons were challenged to improve significantly the work of equipping dairy farms and complexes.

The conference adopted a call to all KiSSR agricultural workers to increase significantly the production of milk and other animal products, strengthen the feed base and make a significant contribution to the realization of the Food Program and greet the 27th CPSU Congress with new production successes.

The letter of greeting sent by the CPSU Central Committee was received with great enthusiasm.

V. K. Dolmatov and P. M. Khodov, members of the CPKiSSR Central Committee Bureau, and E. Abakirov and J. Ch. Tashibekova, candidates for member of the CPKiSSR Central Committee Bureau, took part in the work of the conference.

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## LIVESTOCK

### ALL-UNION CONFERENCE AIRS MEAT, DAIRY INDUSTRY PROBLEMS

Moscow ZAKUPKI SEL'SKHOZYAYSTVENNYKH PRODUKTOV in Russian No 4, Apr 85 pp 4-7

[Article under the rubric "At the USSR Ministry of the Meat and Dairy Industry": "A Useful Exchange of Experience"]

[Text] In December 1984 at the Exposition of the Achievements of the USSR National Economy, the USSR Ministry of the Meat and Dairy Industry held an All Union Conference for the sector's workers on improvements in the procurement of livestock, poultry and milk.

The speech by Yu. A. Krokha, deputy minister, acquainted the conference's participants with preliminary results of the sector's work in 1984 and dwelt upon shortcomings and urgent tasks for further improvements in organizing the procurement of livestock, poultry and milk.

In particular, he noted that the restructuring of Meat and Dairy Industry enterprises in connection with the formation of agroindustrial associations is going slowly. He talked about the establishment of closer economic ties with kolkhozes and sovkhoses in the struggle to fulfill procurement and delivery plans and the strengthening of procurement contract discipline. One cannot tolerate a large number of farms and enterprises annually not fulfilling planned volumes and forward contracts for the purchase of livestock, poultry and milk.

It is now required that industry workers, in particular those engaged in procurement organization, more persistently attain a general increase in animal product resources for industrial processing, including those on a customer supplied basis [daval'cheskikh usloviyakh].

The deputy minister noted further that it is very important to struggle together with farm workers to improve the quality of the products procured. This holds large reserves for increasing the quality of products supplied to the public.

Yu. A. Krokha stressed that we are entrusted with a great and responsible task of implementing the decisions of the May (1982) CPSU Central Committee Plenum concerning the transition to the receiving of livestock, poultry and milk

directly at farms and their transportation in specialized vehicles. As is known, this work should be completed in the 11th Five-Year Plan.

Order should be brought into economic relations between industrial enterprises and agriculture. In particular, there is special concern about the frequent cases of delayed reception by our enterprises and improper evaluation and payment for products procured at kolkhozes and sovkhoses. Every year the State Inspectorate for the Purchase and Quality of Agricultural Products and financial organizations discover substantial total underpayments and overpayments by meat combines and dairy enterprises to farms for livestock and milk received. Based on review results, fines are levied for violations of rules for receiving and accounts. There are still cases where useful products are lost during transport and at enterprise reception points. Reserves for increasing livestock and milk procurement through citizens' individual subsidiary operations are not completely used.

All this makes it necessary to thoroughly improve the procurement activities of the meat and dairy industry, decisively strengthen state plan discipline in the procurement of livestock and meat and enhance the responsibility of managers and specialists at all levels of the sector for improvements in raw material supplies to enterprises and for improvements in relations with kolkhozes and sovkhoses in the agro-industrial complex.

I. I. Fedorus, chief of the Administration for Raw Material Purchases and Farm Ties with APK Sectors in the Meat and Dairy Industry presented a report titled: "On Tasks of Workers in the Meat and Dairy Industry in Improving the Organization of the Purchase of Livestock, Poultry and Milk and the Further Development of Direct Ties Between Meat and Dairy Enterprises and Kolkhozes and Sovkhoses in Light of the Decisions of the May (1982) and February and April (1984) CPSU Central Committee Plenum." His report will be published in the May issue of our journal.

A. Golubev, chief of the Meat and Dairy Industry's Transportation Department gave a speech on problems in the effective use of truck transportation for the centralized haulage of animal products. In particular, he directed the attention of conference participants to the fact that the shortage of trucks in the sector makes it essential to considerably improve the productivity of available and newly obtained vehicles so that the existing fleet will haul more raw materials. He also noted that the available specialized fleet is not used with sufficient effectiveness. The annual productivity per milk tank truck in hauling milk from farms hardly averages 1,100 tons for the sector. This means that with an average haul of less than 40 kilometers, each truck only makes one run per day. Productivity is even lower for livestock trucks; 790 tons annually, i.e., a 6 ton capacity truck does not haul more than 2.5 tons of livestock daily.

Productivity indicators for milk tank trucks are much lower than this in Azerbaijan, Georgia, Armenia and the Tajik SSR, where they are only 400 - 600 tons of milk annually. The productivity of livestock trucks is very low in the Kazakh SSR (291 tons), Georgia (530 tons) and Armenia (420 tons).

At the same time, the experience of progressive enterprises and truck transportation operations shows that with the proper organization of the transportation process, truck fleet productivity on these hauls can be considerably improved.

For example, at the Belorussian SSR Ministry of the Meat and Dairy Industry's Slonimskiy Autobase, annual productivity per livestock truck is 1,180 tons, or about 1.5 fold higher than the sector average. Livestock truck productivity for the republic's Meat and Dairy Industry as a whole grew 14 percent in 3 years. At enterprises in the Ukrainian SSR Meat and Dairy Industry the average annual productivity per milk tank truck on centralized hauls was 1,290 tons of milk annually, or almost 20 percent higher than on other hauls of equal distance in the sector.

In A. G. Golubev's opinion, one of the present factors for improving truck fleet productivity in central hauls is the the loading of trucks on return trips with separated milk when hauling milk from suppliers. He noted that it is wasteful for empty trucks to be sent for milk, only to meet farm tank trucks hauling separated milk on their return haul.

In Belorussia, for example, truck productivity increased 9.4 percent in a year, mainly through the organization of separated milk hauls at farms during routes. This also sharply improved truck transport productivity in the Lithuanian SSR. True, this required conditions which, unfortunately, are not present at all farms. In order to load vehicles with milk after hauling separated milk, it is necessary to wash and steam clean them, something which it is not possible to do everywhere. What is the solution? How are some milk plants solving this? At central dairy farms they have set up special insulated storage tanks for receiving and dispensing separated milk. After a work shift at a dairy plant, the separated milk obtained is pasteurized, cooled and pumped into these tanks. In the morning, the cooled separated milk is loaded into tank trucks and hauled to farms and unloaded. After this, the trucks are washed and filled with milk. This system is advantageous to everybody: both to the farms receiving the separated milk and the enterprises delivering it.

Increases in vehicle speed are another important factor for improving productivity. At present, trucks make one trip daily, with the average haulage distance for the sector only 38 kilometers. This is because very much time is spent on auxiliary operations and there is a lot of vehicle idle time. It turns out that trucks spend more time standing idle than they do on the routes. Also, milk is analyzed twice at farms and once again at enterprises only an hour later. This causes additional losses of milk and unproductive idle time for vehicles. If it could be restricted to only one analysis, this would also improve vehicle operational speed. Truck productivity also depends upon the degree to which milk tank capacity is used. Under the present procedure, milk is hauled in separate tanks from each farm to the milk plant, where it is put into one tank after reception.

This procedure leads to considerable reductions in tank truck productivity, especially in the winter, when milk production falls and milk trucks are not completely loaded. However, it is not possible to organize a ring route system

where milk from 2 or 3 farms is put into one tank. This problem must be solved with a view to the specific situation, depending upon milk quality at various farms. Some republics have experience in this.

In his speech, E. G. Nigmatulin, deputy director for raw materials at the Temirtau Meat Combine in the Kazakh SSR, stated that the basis for improvements in the form of relations between partners in the agro-industrial complex and for fulfilling plans is the observation of forward contracting conditions.

The Temirtau Meat Combine annually signs forward contracts with 125 farms for a total of 32,000 tons of livestock. About one-half of this arrives from farms in neighboring oblasts located from 200 to 800 km away.

Prior to signing these contracts, a commission consisting of representatives from the parties involved and the State Inspectorate for the Purchase and Quality of Agricultural Products surveys the farms' readiness to deliver livestock and their subsequent centralized haulage by the meat combine's special vehicles.

Contract fulfillment is monitored monthly by the enterprise raw material service. If necessary, questions about livestock delivery are brought up for examination by the presidium of the council of the rayon or oblast agro-industrial association, where questions about the fulfillment of agreed upon monthly schedules for the delivery of livestock for processing are examined.

Thirty livestock trucks haul more than half of the livestock centrally delivered to the enterprise. A small share of the meat combine's specialized transport equipment is leased from a specialized base at the oblast agricultural administration, with which a contract has been signed.

The brigade method for organizing the work of drivers on centralized hauls is being introduced. A form has been developed and introduced to account for the work indicators of brigade members with regard to the observation of schedules and livestock safety over a one month period. Every day the operational dispatcher fills out the forms and evaluates the indicators for the drivers' information. These documents are sent to the bookkeeping office to calculate bonuses for brigade members. This way of organizing the work of drivers on central hauls is giving positive results. There have been reductions in failure to observe schedules, in cases of injuries to livestock and in the idle time of livestock trucks during loading and unloading. Every year the enterprise increases the rate of the centralized haulage of livestock from farms. While at present we use this method to haul 36 percent of all livestock arriving for processing, in 1985 we plan to haul more than half in this manner.

N. S. Golovatyy, chief of the Administration for Agriculture, Feeding and the Purchase of Livestock and Meat, Ukrainian SSR Ministry of the Meat and Dairy Industry, dedicated his speech to the state of and prospects for the centralized hauling of livestock and milk. He noted that centralized hauling of livestock and milk began back in 1970, but its share is still low: 47.8 percent for livestock and 25.6 percent for milk. These are considerably lower



than the averages for the country as a whole. N. I. Golovatiy attempted to explain this situation only by objective factors, passing by in silence, the fact that in a number of oblasts in the republic, the centralized hauling of animal products from farms is well organized, while in others it is unsatisfactory. The share of centralized hauling of livestock is 73.3 percent in Ivano-Frankovsk Oblast, 69 in Ternopol, 66 in Kharkov, and 58 percent in Cherkassy Oblast; while for milk the figures are 59 percent for Ivano-Frankovsk Oblast, 64 percent in Ternopol and 53 percent in Chernovitsy Oblast. Contrary to what the speaker stressed, it turns out that the matter does not lie so much in objective factors as it does in poor organization.

R. Sh. Antadze, general director of the Tbilmyaso [Tbilisi Meat] Association examined organizational work in the fulfillment of forward contracts and the expansion of the centralized hauling of livestock from kolkhozes and sovkhoses in the republic. He noted that every year the association signs forward contracts with kolkhozes and sovkhoses in accordance with the degree on the purchase of agricultural products. These contracts make provisions for the delivery of livestock directly from the farms and their centralized hauling. Every year contracts are signed with 150 kolkhozes and sovkhoses in 15 rayons and there is systematic organizational work with contracting farms. The rayon agro-industrial associations have monthly meetings with suppliers, where they discuss questions of quality, the fulfillment of livestock sales plans and the observation of schedules.

Production associations and farms carry out systematic work on accelerating the transition to receiving livestock directly at farms and delivering them by specialized transport. They started introducing this method in the republic in 1979. In 1984 about half of all livestock procured were received directly at farms.

The advantage of centralized hauling is, above all, that one can compile daily tonnage schedules between delivering farms, transportation operations and the meat combine. This assures the rhythmic work of the entire meat combine in the fulfillment of ten day, monthly and quarterly plans and all production indicators. By 1990 it is intended to completely convert to receiving livestock at farms and to centrally haul them in specialized vehicles.

Director I. A. Apal'kov reported the work of the Georgiyevsk Meat Combine with kolkhozes and sovkhoses in assuring the fulfillment of forward contracts for livestock and their smooth delivery for processing.

This meat processing enterprise serves 70 farms in a number of rayons in Stavropol Kray. During the massive processing of sheep it serves additional farms from other rayons. The maximum distance for livestock delivery to the combine is 160 kilometers.

Livestock are centrally delivered to the combine in the following manner. The enterprise has set up a Department for Raw Materials and Procurements, headed by a deputy director. In each rayon there is an authorized agent who is on the combine staff and occupies a post in the agricultural administration in the rayon. The obligations of the agent include the signing of contracts for central hauling and control over their fulfillment.



In January the agents conclude, directly at farms, forward contracts with sovkhozes and kolkhozes in the rayon. On the 15th of each month they send the meat combine data on raw material resources broken down by farms and compile schedules for daily deliveries of livestock and poultry by each sovkhoz and kolkhoz. These are given to each farm. One copy each is given to the Rayon Inspectorate for the Purchase and Quality of Agricultural Products, the RAPO and the Goskomsel'khoztekhnika motor transport office servicing the rayon.

Two days prior to the delivery of livestock to the meat combine, the agent puts in a request for the number of vehicles needed to haul them to the meat combine and monitors the arrival of vehicles at the farm.

At RAPO meetings the agent reports the fulfillment of forward contracts and the work of motor transport in hauling livestock. Every quarter the meat combine sums up results on the fulfillment of forward contracts. Claims are made if contracts are violated. Such claims totaled 135,000 rubles in 9 months of 1984.

As I. A. Apal'kov noted, delays in increasing the amount of central hauling are due to the insufficient number of specialized vehicles, the shortages of scales, loading ramps, pens and chutes at farms; and the lack of solid surfaced side roads.

K. K. Chernyy, deputy general director of the Cherkassy Meat Industry Production Association stated in his speech that every year in the oblast there is a increase in the volume of central hauling of livestock. In 1980 this method was used to haul 43,000 tons, in 1983, 84,000 tons and in 10 months of 1984, 89,000 tons.

The association is working in close contact with the oblast agricultural administration and the State Inspectorate for the Purchase and Quality of Agricultural Products to compile daily and hourly schedules for the delivery and reception of livestock and to control their fulfillment. The schedule is compiled with a view to the suggestions of rayons concerning the type of animals and for each enterprise. It is signed by the chief of the oblast agricultural administration, the main state inspector for the purchase and quality of agricultural products and the general director of the association. It is approved by the chairman of the oblast agricultural association. It is strictly mandatory for all suppliers and procurers.

K. K. Chernyy supported speakers' proposals to make refinements in the determination of the percentage of centrally hauled livestock. He noted that in Cherkassy Oblast, for example, up to 20 percent of livestock are hauled outside the oblast boundaries by railroad. It is therefore proper to have the percentage of central hauling apply to the quantity of processed livestock, and not to the procurement volume, which also includes breeding animals, meat for public food service, the processing of poultry by poultry factories and the purchase of rabbits by Tsentrosoyuz [Central Union of Consumer Societies].

G. V. Dilanyan, department chief at the Armenian SSR Ministry of the Meat and Dairy Industry, spoke about the organization of livestock purchases from the

public. These are made by rayon livestock procurement organizations and meat processing enterprises. At present 32 livestock procurement offices are operating in the Armenian ministry's system. In order to increase meat procurement from the public, every year in all rayons, local soviet and agricultural organs count the herd owned by the public and sign contracts for the purchase of surplus animals. To increase the public's interest in sales of meat to the state, the republic has organized the sale of mixed feed to meat suppliers. The contracts for the purchase of meat from the public indicate the amount of mixed feeds to be sold, and, when necessary, make provisions for the advance sales of up to 30 percent of the total amount.

The ministry has assigned rayon livestock procurement offices more than 80 trucks and specialized vehicles for hauling livestock and mixed feeds. This applies in particular to the organization of purchases from remote regions. This equipment is also used to assist citizens in hauling feed and livestock.

To organize purchases in remote regions and summer pastures, the rayon livestock procurement offices have been assigned additional procurement workers. The ministry is taking measures to expand the procurement network to bring these organizations near local production.

In 1983-1984 receiving points were set up at three rayon procurement offices and a new livestock procurement office was set up on a cost accounting basis in Bagramyanskiy Rayon. They are now examining the question of setting up offices in three more rayons. After this is done, all rural rayons in the republic will have livestock procurement organizations, the average distance of which from production sites will not exceed 15 - 20 kilometers.

G. P. Pilipenko, chief of the Borisopol'skiy Receiving Point of the Kiev Production Association of the Meat Industry also shared experience in the organization of livestock procurement from the public. The rayon has 37 populated points and 20 rural soviets of people's deputies.

Twice annually, the rural soviets take a census of livestock owned by the rayon public. This is done by deputies of rural soviets and workers at receiving points. The time for livestock deliveries is set when visiting households.

The lists of citizens who should deliver livestock are available at rural soviets and the procurement point. They are the basis for compiling schedules for the arrival of animals at the procurement point.

Livestock received from the public is hauled by trucks using the ring route method. Route sheets show drivers the village and location of cattle collection, here are from one to three in each village. The rural soviets and the public are informed of the time the trucks will arrive. The ring route schedules indicate the date and time for picking up livestock according to the route plan which has been worked out. This procedure considerably reduces the time spent by suppliers and frees them from concerns about transportation. Suppliers are given receipts for the livestock delivered. The money is transferred to saving accounts for their place of residence.

The animals are weighed at the receiving points. There are 1 and 10 tons scales for this. The animals' state of nourishment is also determined.

The animals received are loaded into trucks and sent to the Kiev Meat Combine. They are accompanied by a guide who is the materially responsible person.

The public is sold one half kilogram of mixed feed in return for each kilogram of livestock delivered. It is delivered on a schedule indicating the populated point and sent to private plots using procurement point transport.

The work experiences of the Volgograd Meat Industry Association in attracting customer supplied meat for industrial processing was the theme of the speech by P. A. Shmakov, deputy general director of that association. He noted that in view of its geographical location and climactic conditions, Volgograd Oblast is a zone of high risk agriculture and is unstable for animal raising. For this reason the plan for delivering livestock for processing is often not fulfilled. This has an effect upon the production activities of meat processing enterprises.

The considerable irregularities in livestock deliveries to the association force it to take measures to find additional raw material sources from other regions as well as customer supplied livestock from suppliers in all categories throughout the oblast. The main source is livestock purchased from the public by the consumer cooperative system.

The Oblast Consumer Union system has a large number of slaughter points and sausage shops. Up to 20,000 tons of livestock purchased from the public are annually processed at association meat combines.

The association constantly monitors questions about processing livestock received from customers in the same way it does those from state resources. Together with the Oblast Consumer Union, every month it compiles a schedule for livestock arriving at the meat combine from the rayons attached to it. Twice a month enterprises give the association information about the processing of livestock provided by customers. Every month the association's production department gives each meat combine targets for product output from such sources. Once a week at the main Volgograd Meat Combine there is a planning meeting of the association general director, Oblast Consumer Union Board chairman and their deputies on questions in livestock reception and processing and in adjusting the volumes and assortment of output, based upon raw material availability, etc.

The association and the Oblast Consumer Union Board discuss the course of livestock procurement and processing. The Oblast Consumer Union Board management and directors of procurement offices are invited to the meat combine directors' councils, and, in turn, association representatives are invited to meetings of the board. Such joint measures have had positive results.

P. A. Shmakov went on to say that their own experience convinced them that all livestock had to be brought in for processing at meat industry enterprises,

completely eliminating slaughter at primitive points run by consumers' cooperatives and forced slaughter at kolkhozes and sovkhoses or at households.

P. A. Shmakov also thinks that it is necessary to solve some problems in the processing of livestock supplied by customers. Above all, such output should be included in the indicator "Mass Consumption Goods", otherwise production costs at association enterprises will rise. In 10 months of 1984 the processing of customer supplied livestock at the Volgograd Meat Combine alone increased production costs by 245,000 rubles.

One should note that Oblast Consumer Union enterprises are not sufficiently equipped for work with industry. More often than not, livestock are delivered to procurement points in an sporadic manner. The procurer takes from the peasant household as many animals as he can buy, depending upon the transport randomly allocated to him, not adhering to any meat combine schedule or working regulations. The procurement of cattle from the public coincides with the season for the mass processing of animals from kolkhozes and sovkhoses. In some periods the uncoordinated delivery of the public's animals leads to difficulties in assuring timely reception, processing and distribution.

The following also spoke at the conference: V. A. Lazarchik, chief, Department for Raw Material and the Centralized Hauling of Livestock and Milk, Belorussian SSR Ministry of the Meat and Dairy Industry; I. P. Kryukov, deputy general director, Belogorod Dairy Industry Production Association; A. S. Doroshenko, chief engineer of the Ivano-Frankovsk Meat Combine (it is planned to publish their articles in this journal's next issue); A. Ye. Kozlova, milk collector from the Sapozhkovskiy Milk Plant, Ryazan Oblast (read her article in issue No. 3); and M. P. Aleshchev, senior scientific associate at the Sector Scientific Research Laboratory for Problems in the Efficiency of Agricultural Product Procurement, All-Union Correspondence Institute for the Food Industry.

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## REGIONAL DEVELOPMENT

### RSFSR MINISTER DISCUSSES PROGRESS, DEVELOPMENT

Moscow SEL'SKOYE KHOZYAYSTVO ROSSII in Russian No 3, Mar 85 pp 2-4

[Article by V.P. Nikonov, minister of agriculture of the RSFSR: "On the Path of Intensification"]

[Text] The agrarian policy is an extremely important component of the CPSU's economic strategy. The contemporary phase began with the March 1965 Plenum of the CPSU Central Committee, which was an important landmark in the development of socialist agriculture. Its systematic and persistent implementation has brought large positive advances in the rural area, which has made it possible to turn the Russian Federation's agriculture into a developed sector of the economy and to provide it with modern machinery, equipment and technology.

Today, as we assess what we have achieved, we should mention first of all the enormous amount of work done to build up the sector's materials and equipment base. In the years since the plenum, 256 billion rubles in capital investments have been applied to develop the republic's agriculture. Its fixed capital has increased 4.3-fold as a result.

Production facilities have been built at an accelerated pace. Livestock facilities for 46 million head of cattle, 41 million head of hogs and 37.8 million head of sheep have been placed into use. Large milk, meat, poultry and egg production complexes have been built, as well as garages, repair shops, storage facilities and other production facilities. The supply of motor vehicles, tractors, combines and other equipment for agriculture has increased at the same time. This has made it possible to renew practically the entire machine and tractor pool on the kolkhozes and sovkhozes, to increase its capacity and improve its quality. The machine-builders have mastered the production of systems of equipment for large livestock farms and complexes, which has made it possible to mechanize many labor-consuming processes in animal husbandry and to arrange for the feed to be fed in processed and prepared form. Electric energy is being used more extensively in agriculture.

Purposeful work on the expanded renewal of soil fertility occupies an important place in the system of measures determining the productivity of agricultural production. The accomplishment of this task is particularly important for the Russian Federation. Practically every third hectare of tilled land in the republic is acutely in need of liming and has an adverse phosphate level, and every eighth hectare has a low potassium content. Saline soil is extremely widespread. Water and wind erosion are found on considerable areas. The humus content is dropping in the soil of a number of the republic's regions.



The application of chemicals has a large role with respect to preserving and increasing the soil fertility. Deliveries of mineral fertilizers for agriculture have grown by almost 10 million tons (active substance) in two decades. A great deal of attention is being devoted to the chemical improvement of the soil and to the application of organic fertilizers. The average annual volume of acidic soil limed during the first 4 years of this five-year plan increased 1.9-fold over the figure for the 8th Five-Year Plan, surpassing 4.4 million hectares. Average annual amounts of alkaline soil to which gypsum was added increased by almost one-third during that period. The use of organic fertilizers grew 2.3-fold. The kolkhozes and sovkhoses began to receive and apply markedly greater amounts of agents for protecting plants against pests, diseases and weeds.

The establishment of a specialized agrochemical service in 1979 was a turning point in the development of the use of chemicals. Amounts of chemical agents used has increased, and the level of agrochemical services for the kolkhozes and sovkhoses has risen during the 5 years it has been functioning. Since 1981 it has been effecting the comprehensive agrochemical cultivation of fallow land, which has made it possible to significantly increase the soil fertility and the effectiveness of the chemical agents, and to increase farm crop yields by 35-40 percent. Some good experience in working actively in this area has been accumulated in Belgorod, Lipetsk and Kemerovo oblasts and in the Mari, Tatar, Kabardino-Balkar and North Osetian autonomous republics. It must be given broad dissemination.

Almost 63 million hectares of acidic soil has been limed in the republic in the years which have elapsed since the March plenum. The application of liming material has grown from 3.7 to 6.4 tons per hectare. There are still considerable areas of acidic soil in the republic, however.

The republic has around 35 million hectares of saline or alkaline soil, including 14 million hectares of tilled land. The cultivation of acidic, saline and alkaline soil constitutes an enormous reserve for increasing the output of agricultural products, and it should be fully utilized.

The Sel'khozkhimiya [Committee for the Provision and Application of Chemical Agents in Agriculture] associations sometimes do not do enough to influence the application of chemical agents in strict accordance with the technological documents which have been developed. We do not get a full return from the agents as a result.

The service for introducing methods assuring effective use of fertilizers and plant protection agents, and the improvement of product quality, and for increasing the production and improving the quality of organic fertilizers on the kolkhozes and sovkhoses is in need of major improvement.

Extensive land reclamation is becoming increasingly important in the development of agriculture. The development of reclamation has been given great impetus since the May 1966 Plenum of the CPSU Central Committee. The amount of irrigated and drained land in the republic has tripled during that time. Reclamation construction has assumed particularly great scope in the Nonchernozem Zone. A total of 6.7 million hectares of land has been improved there just in the past 10 years.

Considerable funds are spent on reclamation. They add up to around 40 billion rubles for the past 18 years. The benefit is also great, however. The average yield from an irrigated hectare already exceeds the output from the same area of dry land more than 4-fold, and the yield from drained land almost 2-fold.

There are serious shortcomings in the use of reclaimed land, however. A number of kolkhozes and sovkhoses do not adhere to the prescribed agricultural practices, fertilize the fields poorly and do not adhere to irrigation schedules or rates. The productivity of this land in the republic as a whole has still not reached the projected level as a result.

The October 1984 Plenum of the CPSU Central Committee marked the beginning of a new phase in the development of reclamation. In accordance with the long-range program approved by the plenum, the area of reclaimed land in the Russian Federation is to be increased approximately 2-fold by the year 2000. The total area of irrigated land is to reach 10-11 million hectares, the total area of drained land--9-10 million.

The priority channeling of capital investments into the technical improvement of existing land improvement systems and the improvement of effectiveness in the use of irrigated and drained land on the republic's kolkhozes and sovkhoses will be the determining direction for the development of land reclamation for now and in the future.

A great deal has been done toward the social restructuring of the rural area since the March Plenum of the CPSU Central Committee. Around 164 million square meters of housing, including individual construction, has been built in the republic. The amount of socialized rural housing equipped with water lines has been increased by 70 percent since 1975, the amount of housing with gas--67, sewerage systems--77, central heating--65, and hot water--95 percent.

General education schools with a capacity of more than 6.2 million students, pre-school establishments for 1.5 million children, clubs and cultural centers for more than 4 million people have been placed into use.

Experience has shown that the farms which devote constant attention to the construction of housing, cultural and personal service facilities successfully resolve the personnel problem and develop production at a more rapid rate.

The Rodina Kolkhoz in Vologda Oblast, which has been headed constantly by Hero of Socialist Labor M.G. Lobytov for the past 30 years, is well known in our nation. The farm has almost doubled its grain yields in 20 years. It obtained an average of 56 quintals per hectare last year. Feed production has grown 1.6-fold. Milk yields per cow have increased by more than 1,000 kilograms, exceeding 5,000 kilograms in 1984. The economic indices have also improved markedly. The kolkhoz had a net income of only 326,000 rubles in 1965, but the figure reached more than 2 million rubles in 1984. I could cite many such examples.

At the same time, it must be pointed out that certain kolkhozes and sovkhoses are making serious errors in the construction of housing, cultural and personal service facilities. Absorbed in building production facilities, they invest few funds in housing and other nonproduction construction. This results in a loss of workers, which ultimately leads to breakdowns in the system of agricultural operations and in production shortfalls.

The construction of intrafarm roads on the republic's kolkhozes and sovkhoses increased considerably during the years of the 10th and 11th Five-Year Plans. A

total of 5,815 kilometers of roads will have been built by 1986. This rate of road construction is clearly inadequate, however. In view of the great influence the road system has on the social development of the rural area, more than 3 billion rubles will have been invested in road construction on the republic's kolkhozes and sovkhoses under the 11th Five-Year Plan, compared with 1.8 billion under the 10th.

The systematic implementation of the party's course of intensification and accelerated improvement of agriculture is producing results. Preliminary figures show that gross agricultural output on the republic's kolkhozes and goskhoses will be 1.6-fold greater in 1984 than in 1965. Average annual growth rates for agricultural production have been 66 percent during the first 4 years of the 11th Five-Year Plan over the rates for the 7th.

The Russian Federation is an important grain production area of the nation. The average annual grain production increased by 37.3 million tons under the 10th Five-Year Plan, compared with the period 1961-1965. The increase in grain production and procurement in the republic was achieved mainly by increasing yields, improving the crop structure and applying economic levers in a positive way.

Extremely bad weather conditions developed in 1981, 1982 and 1984 of this five-year plan. Despite this, the average annual grain production increased considerably during the first 4 years over the figure for the 7th Five-Year Plan.

If we objectively assess the development of grain farming in the years since the March plenum, we should note that there are still unutilized reserves in this important branch of agricultural production, including primarily reserves for increasing output and improving the grain quality.

A great deal of work has been performed in the republic in 20 years to improve the quality of crop cultivation and establish crop rotation systems. Comprehensive, scientifically based crop cultivation systems have essentially only been developed under the 11th Five-Year Plan, however, the adoption of which on all the republic's kolkhozes and sovkhoses is to be completed in 1986. Considerable importance is attached to increasing the area of bare fallow, the total area of which will be increased to 14 million hectares. This will make it possible to increase the level and stability of yields and to significantly improve the quality of the grain, particularly wheat.

Advances have also been made in other areas of crop production. Beginning in 1979, the kolkhozes and sovkhoses began adopting industrial technology for raising grain and industrial crops, potatoes and other vegetables. This technology was applied on an area of 2.3 million hectares in 1984, including 618,000 hectares of corn grown for grain, 549,000 hectares of sunflowers, 291,000 hectares of soybeans, 814,000 hectares of sugar beets, and 158,000 hectares of fibre flax.

The cultivation of wheat with intensive technology assuring high yields from this crop has been initiated. This technology was used for planting 5 million hectares of winter wheat in 1984, and 5.9 million hectares of spring wheat will be planted using the technology in the spring of 1985.

Extensive changes have occurred in the development of animal husbandry. Output from this branch accounted for 59 percent of the republic's gross agricultural output in 1983. Many branches of animal husbandry have been turned from small, unprofitable branches into large, well equipped and highly profitable ones. The bloodlines of the animals have been improved, the materials and equipment base for animal husbandry and feed production has been strengthened, and the quality of the products sold the state by the kolkhozes and sovkhoses has improved. All of this has made it possible to provide the population with a better supply of food products and industry with a better supply of raw materials.

Meat production increased by 4.3 million tons, or 55 percent, under the 11th Five-Year Plan, compared with the average annual rate for the 7th; milk production increased by 12.2 million tons, an increase of 34 percent; egg production rose by 26.3 billion, a 2.6-fold increase; and wool production rose by 45,000 tons, an increase of 25 percent.

Kolkhozes and sovkhoses of the RSFSR have achieved fairly high rates of growth for milk and beef production in recent years. And they have been achieved not simply by increasing the size of the herd, but by raising the productivity of the animals. An average of 1.3-fold more milk and 1.7-fold more beef (in live weight) was produced in the republic per year during the years of the current five-year plan than during the period 1961-1965.

According to preliminary figures, the kolkhozes and sovkhoses achieved an average milk yield of 2,320 kilograms per cow in 1984, compared with 2,030 kilograms in 1965. The size of the cattle herd was increased by 45 percent, including a 32 percent increase in the number of cows, during that period.

The important thing is that the production of milk and livestock raising for meat and milk are increasing in all of the Russian Federation's economic regions, with most of the growth occurring in the public sector. These growth rates are not the same throughout, however. The greatest success in the development of this branch is being achieved by farms of the Central, Volgo-Vyatsk, Ural and Far East regions.

Enormous changes have occurred in the development of poultry raising, which has been converted almost entirely to an industrial basis and been concentrated in the RSFSR Ptitseprom [Poultry Industry Administration?] system. It accounts for 94 percent of the egg production and 92 percent of the poultry meat production in the total output of these products in the republic's public sector.

A great deal of work has been performed in the specialization and concentration of production and the conversion of animal husbandry to an industrial basis. Inter-farm cooperation has undergone extensive development, especially in the area of the final raising and fattening of cattle. In order to further develop animal husbandry, it will be necessary to take effective steps to build up the feed base. The main problems in feed production essentially involve significantly increasing the yield from cultivated feed crops, expanding areas planted to corn for grain, increasing the productivity of natural feed land, establishing cultivated and irrigated pasturage on large areas, improving seed production for feed crops, especially the grasses, and extensively adopting progressive technology for feed production and storage.



The July 1978 Plenum of the CPSU Central Committee defined the need to convert feed production into a specialized branch of agriculture. The procurement of roughage and succulent feed and grass meal on kolkhozes and goskhozes of the RSFSR grew from an average of 35.8 million tons of feed units during the period 1961-1965 to 64.3 million tons during the years of the 11th Five-Year Plan, which amounted to a 1.8-fold increase. The farms have begun employing progressive feed procurement technology making it possible to substantially improve the feed supply for public animal husbandry. The growth of feed production from the level for the 7th Five-Year Plan has been achieved mainly by increasing the areas planted to cultivated feed crops from an average of 35.4 million hectares to 39.1 million during the years of the current five-year plan, by improving the feed crop structure and raising yields.

The imbalance of the feed with respect to digestible protein is still an important problem in feed production. We must improve the structure of the perennial grasses within the near future by increasing the areas planted to legumes, rape, mixed grain and legume crops and vetch in the annual grasses, lupine and the varieties of feed crops with a high digestible protein content.

In accordance with decisions coming out of the May 1982 Plenum of the CPSU Central Committee, extensive steps have been taken in the republic's agriculture to strengthen the economies of the kolkhozes and sovkhozes. A total of 12.6 billion rubles has been allocated for increasing procurement prices and establishing price increases for kolkhozes and sovkhozes operating with a low profitability level or at a loss. Total price increases amount to almost 380,000 rubles per farm, with the increases distributed primarily among oblasts of the Nonchernozem Zone, Eastern Siberia and the Far East.

In 1983, republic kolkhozes and sovkhozes completed their production work in the black for the first time in 3 years. The state farms had profits totalling 5.8 billion rubles, and the kolkhozes had a net income of 4.7 billion. The profitability level for agricultural production was more than 21 percent.

Gross agricultural output in the republic's public sector exceeded 48 billion rubles. This was 8 percent above the 1982 level and 12 percent greater than the average for the 10th Five-Year Plan.

We know that weather conditions have been bad in recent years. Despite this, according to preliminary data, the republic produced approximately 11 billion rubles more than in 1981 and 1982. The republic fulfilled its plan for the sale of all types of animal husbandry products to the state in 1984, as it did in the previous year.

I could not fail to mention that production costs for individual types of animal husbandry products have begun dropping. This has been achieved mainly by reducing material outlays, primarily the consumption of energy--solid and other fuels--and by making thriftier use of spare parts and construction materials.

The collective contract was an important factor in the improvement of economic indices on the farms. A total of 52,800 contract teams and brigades operated in crop production on kolkhozes and sovkhozes of the RSFSR Ministry of Agriculture in 1984. They worked 48 percent of the total tilled land.

A total of 66,100 farms, teams and brigades have been converted to the contract system in animal husbandry. They service 18 percent of the total herd of cows, 22 percent of the cattle being fattened, 35 percent of the hogs and 30 percent of the poultry. Our task is now one of making the collective contract the determining form of labor organization on the republic's kolkhozes and sovkhozes within the immediate future.

Enhancing the effectiveness of agricultural production and accomplishing the tasks specified in the Food Program are the job of the entire agroindustrial complex. The new management agencies set up in agriculture, the agroindustrial associations, have a decisive role in the accomplishment of this large and complex task. In the first years of their functioning they have increased coordination of the work of kolkhozes and sovkhozes with that of the enterprises and organizations servicing them, decisively overcome narrow departmental interests and structured their work to serve the main objective of increasing agricultural output and improving the quality of the products and strengthening the economies of the kolkhozes and sovkhozes.

The nation has entered 1985, the year of preparations for the forthcoming 27th Congress of the Lenin party. In his speech at the October 1984 Plenum of the CPSU Central Committee, Comrade K.U. Chernenko, general secretary of the CPSU Central Committee, thoroughly described the basis for the immediate tasks of the party and the people in the implementation of the Food Program. Right now, in the concluding phase of the five-year plan, the Russian Federation's agricultural workers must make a maximum effort to reinforce the positive advances achieved and set new and higher goals in the fulfillment of tasks set by the party.

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## AGRO-ECONOMICS AND ORGANIZATION

### STRENGTHEN FINANCIAL CONTROL IN AGRICULTURAL ENTERPRISES

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[Article by V. V. Dementsev, USSR first deputy minister of finance: "Expanding the Role of Finance in the Development of Agricultural Production"]

[Text] The USSR economy is at an important stage in its development. We have behind us four years of intensive labor aimed at realizing the decisions of the 26th CPSU Congress. The country has entered the final year of the 11th Five-Year Plan, a year characterized by some extremely complex and important goals.

In all of its activities, the party is guided by the directives of the 26th CPSU Congress and subsequent plenums of the Central Committee. They outlined a complete program of action for fulfilling both current and long-range goals. The economic sphere has been and remains the center of all the party's activities. A comprehensive program is being carried out to improve the entire management mechanism; it should correspond fully to a developed socialist economy and to the nature of the goals. This program calls for improvements in the organizational structure of management at all levels and in all links of the national economy, in addition to improvements in the planning system, increasing the effectiveness of economic levers and stimuli, including prices, finance, and credit, and the application of scientific methods to evaluate the operation of enterprises and organizations.

The primary emphasis should be on raising the level of management, stepping up scientific and technical progress, and making better use of the production potential and all material, manpower, and financial resources to make further improvements in the efficiency of national production. Our goals include working persistently to seek out new reserves, achieving an increase in labor productivity above the level called for in the plan, reducing production costs, increasing profits, improving product quality, and adhering strictly to contract obligations.

Among the measures for strengthening the economy, the Communist Party and the Soviet government are assigning special importance to development of the agro-industrial complex. Convincing evidence of the Leninist approach to meeting the complex, major goals in developing the agrarian sector can be seen in the October (1984) Plenum of the CPSU Central Committee and the Second Session, Eleventh Convocation, of the USSR Supreme Soviet, which confirmed the

State Plan for the Economic and Social Development of the USSR and the USSR State Budget for 1985. The Soviet people have started carrying out the long-term land reclamation program adopted at the party's initiative. Successful fulfillment of this program will make it possible to raise agricultural production to a higher level, ensure steady growth in the country's food supply, and raise the people's standard of living even higher.

There is a steady increase in the funds allocated by the state for development of all sectors of the agro-industrial complex, including industry involved in producing means of production, agriculture itself, as well as sectors involved in the procurement, storage, and processing of agricultural products and raw materials. The capital investments allocated for the development of this complex account for a growing proportion of the total funds invested in the national economy. For example, in the 8th, 9th, and 10th five-year plans, capital investments totalling approximately 500 billion rubles were allocated for the expansion and renewal of the material and technical base of the major sectors of the agro-industrial complex. In the 11th Five-Year Plan, 233 billion rubles were allocated for this purpose, or one-third of the capital investments of the national economy.

In accordance with the USSR Food Program, in the 12th Five-Year Plan 33-35 percent of the total capital investments in the country will be allocated for development of the agro-industrial complex. The bulk of these funds are being used to increase the productive forces in agriculture. In the 8th Five-Year Plan these resources totalled 81.5 billion rubles; in the 9th Five-Year Plan, 130.5 billion rubles; in the 10th Five-Year Plan, 171 billion; in the 11th Five-Year Plan, 189.6 billion; and in the 12th Five-Year Plan they will account for 27-28 percent of all the capital expenditures in the country. Between 1966 and 1980 over 110 billion rubles were invested for production needs alone in the sphere of producing means of production for the agro-industrial complex, and the capital-labor ratio here increased almost three-fold.

The supply of equipment for agriculture is also rising. In 1965 the agricultural sector received 239,500 tractors, and by 1983 this figure had risen to 372,900. A major sector has been created for the production of machinery and equipment for animal husbandry and fodder production. A great deal has been done to build up the capacities in the chemical industry, which has meant a significant increase in the production of mineral fertilizers. Between the 8th and the 10th five-year plans agricultural construction organizations were created, and over 21 billion rubles in state and kolkhoz funds were spent to develop their production base. The creation of agricultural construction organizations in rural areas made it possible to bring the volume of construction and installation operations up to 11 billion rubles per year. The capacities of water management organizations grew, which made it possible to expand the area of irrigated land to 18.3 million hectares, and the area of drained land to 13.4 million hectares.

Between the 8th and 10th five-year plans capital investments totalling about 70 billion rubles were allocated for the sphere of the agro-industrial complex that is engaged in the procurement, storage, and processing of agricultural products; this made it possible to put into operation new elevators with a total storage capacity of 44 million tons, grain warehouses and grain storage



facilities with a capacity of 110 million tons, storage facilities for fruit, vegetables, and potatoes, refrigeration facilities, and capacities in the sugar, fat and oil, flour-milling and meal, confectionary, meat, dairy, and other subsectors of the food industry.

When analyzing the key issues in strengthening the economy of the agro-industrial complex, one cannot reduce intensification simply to an increase in fixed capital. The most important thing is to increase the output of production per unit of material and financial resources consumed.

In accordance with decisions of the 26th CPSU Congress and the May (1982) Plenum of the CPSU Central Committee, a number of organizational and economic measures are being carried out within the agro-industrial complex. The complex has been set apart as an independent planning and management unit. A new system has been created for managing the complex. In early 1983 over 3100 rayon agro-industrial associations were created; they included about 50,000 kolkhozes and sovkhozes, 7500 industrial enterprises, almost 21,000 service organizations, and over 17,000 interfarm enterprises and other organizations, with a total of more than 31 million workers. There are 157 agro-industrial associations in operation in autonomous republics, krays, and oblasts. When the new management organs were formed, over 3200 trust, industrial associations, and other links performing parallel operations that had not justified themselves were liquidated. The management apparatus in agriculture was reduced by 93,700 people. Central and union republic commissions on questions involving the agro-industrial complex were created under the presidiums of the Councils of Ministers.

The goal of the reorganization of management was to ensure coordination of the activities of enterprises and organizations included in the agro-industrial complex, and to raise the economic independence and initiative of kolkhozes and sovkhozes as the primary links in the complex.

The state has taken some large-scale measures aimed at strengthening the economy of kolkhozes and sovkhozes. They have been given a great deal of assistance in improving their financial status, and the necessary conditions have been created for profitable production in the plant industry and animal husbandry, and for introducing genuine cost accounting practices.

In accordance with the decisions of the May (1982) Plenum of the CPSU Central Committee, debts on bank loans totalling 9.7 billion rubles owed by low-profit kolkhozes and sovkhozes were written off, and debts totalling 11.1 billion rubles owed on loans that were to be paid off between 1981 and 1985 were deferred. Kolkhozes and sovkhozes were also released from paying interest on the debts. The purchase prices for animal husbandry and plant industry products were raised by 16 billion rubles calculated on an annual basis. At the same time, purchase prices were raised by 5 billion rubles in connection with cancellation of budget payments to cover the difference in prices for gasoline, construction materials, spare parts, and other material and technical supplies provided to kolkhozes and sovkhozes. Some major steps have been taken to improve the economic status of low-profit kolkhozes. State budget funds are being used to finance the construction of cultural and domestic-use projects and internal roads, and to maintain children's institutions; and low-profit

kolkhozes are required to pay fines. A total of 3.3 billion rubles are allocated for these purposes annually. The wages paid to workers and specialists at sovkhoses in agro-industrial complexes have been raised, and other special benefits have been set up. Every year the state spends a total of 21 billion rubles on measures to strengthen the economy of kolkhozes and sovkhoses. Funds are found by mobilizing internal reserves, and establishing stable retail prices for consumer goods.

The measures taken by the party and the government to realize the Food Program have had tangible results. In 1984 there was a 4 percent increase in the purchases of animal husbandry products compared to 1983. Kolkhozes and sovkhoses had profits totalling 18 billion rubles, and the number of low-profit and unprofitable farms declined.

As a result of increasing purchase prices and carrying out a number of other measures, expenditures on agriculture in 1985 should total 95 billion rubles, 42 billion of which are allocated from the budget. According to preliminary estimates, in 1990 state expenditures on the development of agriculture will reach 118 billion rubles.

As expenditures have risen, there has also been an increase in outlays used to cover the difference between purchase prices and retail prices for plant industry and animal husbandry products purchased from kolkhozes, sovkhoses, and from kolkhoz farmers and workers with private plots. These subsidies were as follows:

	(billions of rubles)			
	1965	1982	1983	1984
Meat	2.8	15.3	21.4	21.0
Milk	--	9.0	13.8	14.1
Grain and oilseeds	0.3	2.0	3.7	3.6
Potatoes and vegetables	--	1.7	2.2	2.4
Other products	0.4	1.9	4.2	3.8
Surcharges on purchase prices for low-profit farms	--	--	9.3	9.8
Total	3.5	29.9	54.6	56.7

These data indicate that in 1984 budget subsidies increased more than 16-fold over 1965. Most of the payments were used to cover price differences in the purchase of meat and milk. In 1984 payments to cover price differences accounted for 14 percent of the state budget expenditures.

In connection with the increase in purchase prices in 1983, there was an increase in the subsidies per kilogram of animal husbandry products purchased by the state from kolkhozes and sovkhoses and kolkhoz farmers and workers with private farms, as evidenced by the following data:

	(rubles and kopecks per kg)			
	Beef	Pork	Milk	Butter
Average retail price	1-77	1-84	0-24	3-38
State outlays on the production and sale of the product	4-75	3-25	0-42	8-18
Margin by which outlays exceed retail price	2-98	1-41	0-18	4-80
Budget payments through regulation account	3-68	1-97	0-29	6-28

Large allocations to cover price differences require greater economic efforts to reduce production expenditures and losses.

Financial organs are doing a great deal to ensure prompt financing of all the measures called for in the food program, and they are monitoring the expenditure of financial resources allocated for the development of agriculture and the agro-industrial complex as a whole. In addition, practice absolutely requires that improvements be made in all economic and control operations and that economic managers and financial organs be more responsible for final results. There must be strict control over the utilization of each ruble allocated for agriculture, payments must be made promptly, and internal reserves must be mobilized. In connection with this, both the financial and credit mechanism and the style of operation in financial organs should be improved. The financial system has at its disposal skilled specialists in agricultural finance, who are capable of resolving the tasks set by the party for strengthening the role of finance and credit in the operation of the agro-industrial complex.

The CPSU Central Committee and the USSR Council of Ministers have taken steps to increase the interest partners in the agro-industrial complex have in the final results of kolkhoz and sovkhoz operations: bonuses have been introduced for workers at enterprises and organizations that serve agriculture for the results of kolkhoz and sovkhoz operations; partial payment for work performed by these organizations for agriculture has been established; 50 percent of their above-plan profit is transferred directly to kolkhozes and sovkhozes; estimates of work performed are made by rayon agro-industrial associations; and penalties are imposed for failure to meet contract obligations. Centralization of economic incentive funds in rayon and oblast agro-industrial associations is an important factor in more rational utilization of financial resources. As a result of this centralization, the associations can exercise full authority over the material and financial means allocated for the development of the agro-industrial complex.

An analysis of the funds allocated to develop agriculture shows that there are many reserves here, and not all those working in the financial system have reorganized their work in light of the new goals for raising the efficiency of national production set by the party and the government. In several instances there is still poor control over the utilization of budget allocations, and a number of kolkhozes and sovkhozes are permitting losses to occur, in spite of all the help they are receiving from the state. It must be clearly recognized that the increase in purchase prices and the other steps that have been taken are not aimed at covering up poor management, but at strengthening the economy

of agricultural enterprises, and introducing genuine cost accounting in order to step up the output of plant industry and animal husbandry products with minimum expenditures of labor and funds. Additional income from higher purchase prices and surcharges for low-profit and unprofitable farms should be aimed primarily at expanding production.

In addition, many kolkhozes and sovkhoses have put supplemental income into the consumption fund, and not into savings. At a number of sovkhoses wages are increasing more rapidly than labor productivity. Workers' wages at sovkhoses in the Uzbek SSR rose by 2 percent, while there was a 2.8 percent decline in labor productivity. In the Kazakh SSR wages there was a 9.9 percent increase in wages, and labor productivity fell by 3.1 percent. At kolkhozes in Kazakhstan there was a drop in gross income compared to 1983, but wages rose. Less money was placed in the indivisible kolkhoz funds than in 1983.

The CPSU Central Committee and the USSR Council of Ministers are focusing a great deal of attention on the collective contract system, which is the most progressive form of organizing labor at socialist agricultural enterprises. This system allows enterprises to make the fullest use of the workers' potential and it promotes a creative attitude toward labor. In those enterprises where the collective contract system has been introduced, there is a higher yield of agricultural crops, livestock gain more weight, and production costs are lower.

The collective contract system has still not been introduced at many sovkhoses, however. In a number of cases only a superficial attempt is made. For example, a survey showed that in Orel Oblast many subdivisions do not receive information on the amount of direct outlays per unit of production in value terms, and no account is kept of these costs. In 1983, for every 100 rubles' of wages, only 9 kopecks in bonuses were paid for holding down direct costs. In Glazunovskiy Rayon, Orel Oblast, where the subdivisions using the collective contract system account for 100 percent of the plowed land and positive results have been achieved, the rate of growth in labor productivity still lags behind the increase in wages. For example, in 1983 there was a 40 percent increase in labor productivity compared to the level in the 10th Five-Year Plan, while the average wages increased by 45 percent. At the same time, wage costs per 100 rubles of gross production increased from 48.8 rubles in the 10th Five-Year Plan to 50.6 rubles in 1983.

Many kolkhozes and sovkhoses are not devoting enough attention to the preservation of socialist property. Evidence of this can be seen in the loss of livestock due to cattle plague and death. As a rule, the responsible individuals are not held accountable for the losses. For example, at sovkhoses under the USSR Ministry of Agriculture in 1983 the individuals responsible were penalized for only 2 percent of the losses, with 0.7 percent in the Uzbek SSR, and 0.1 percent in the Georgian SSR. Reviews and inspections conducted by financial organs should be more specific and effective.

A number of kolkhozes and sovkhoses allow large overexpenditures of fodder in the production of animal husbandry products, and are wasteful with fuel and lubricants. Many farms make inefficient use of agricultural equipment. The economic control work carried out by financial organs should promote more



economical and efficient utilization of material and technical means at kolkhozes and sovkhozes. As a result of the overexpenditure of feed, and a large degree of barrenness among livestock, farms do not produce enough agricultural products, and the production cost rises.

Some financial organs are still not devoting enough attention to enforcing a policy of economy in the consumption of fuel and lubricants. The country is carrying out the extensive Energy Program, which is aimed at achieving a maximum reduction in energy consumption in production. In addition, surveys have shown that many kolkhozes and sovkhozes are doing nothing to control the consumption of fuel and lubricants, and even sell gasoline to private individuals. Measurement instruments and weighing equipment at a number of farms are in disrepair. All this leads to large losses.

Every case of wasteful use of fuel and lubricants and other physical assets should be the object of strict examination. Individuals guilty of poor management and waste should carry full responsibility for their behavior.

Serious attention should be given to economic situations in which farms are operating under equal conditions, but with different results. Some may obtain a good income and have high profits, while others show poor results. This is evidence of varying discipline and different levels of management. This is the situation at kolkhozes and sovkhozes in Kalinin and Ryazan oblasts. The level of economic control here is not high enough.

The goals outlined in party decisions regarding increases in the efficiency of national production absolutely require that financial discipline be strengthened, and that managers of kolkhozes, sovkhozes, and other agricultural enterprises and organizations take more responsibility for the fulfillment of profit plans and for the maintenance of the enterprise's own working capital. Financial organs should exercise stricter control over transactions in agriculture and over the enterprises' use of their own working capital to develop production and make payments into the budget. This defines the level of performance discipline in financial organs.

Agriculture is now highly mechanized. It has at its disposal many grain-harvesting combines, trucks, and other agricultural equipment. In 1983 the power-worker ratio had reached 30 horsepower, as opposed to 7.7 horsepower in 1965. In addition, there have been qualitative changes in the equipment delivered to rural areas. Recently the entire machinery and tractor fleet underwent renewal. The material base has grown stronger. Skillful and efficient use of modern equipment makes it possible to obtain good harvests even under unfavorable weather conditions. However, some shortcomings are being allowed in this area. For example, 12 kolkhozes and sovkhozes inspected in the RSFSR had surplus equipment or machinery that was not being used valued at 602,000 rubles. Some farms do little about equipment repair. Equipment may be stripped down and handled carelessly. It is clearly not efficient for machinery to work just one shift. Often equipment is used in the field, and after the field work is written off ahead of schedule.

In carrying out the program for chemicalization of agricultural production, the state is expanding capacities for the production of mineral fertilizers. A

large network of highly mechanized warehouses is being built for storing the fertilizers. At the same time, however, great losses of mineral fertilizers still occur in the transport, storage, and application of fertilizers. Progressive methods for fertilizer application have still not been put into practice on a broad enough basis.

In addition to greater control over efficient utilization of physical and monetary assets allocated for the development of agricultural production, it is necessary to strengthen financial discipline, and to safeguard the working capital of enterprises and organizations.

At kolkhozes, sovkhoses, and Selkhoztekhnika organizations considerable funds are diverted to pay off debts. As of 1 January 1984 in the Ukrainian SSR these debts totalled 544 million rubles, and 66 million rubles in the Moldavian SSR.

In addition, in spite of the strengthening of the economy of agricultural enterprises, kolkhoz and sovkhos nonpayments to Selkhoztekhnika enterprises and associations totalled more than 520 million rubles. Nonpayments were especially high at kolkhozes in the Ukrainian SSR. In a number of cases these nonpayments are the result of orders for agricultural equipment in the absence of appropriate sources of financing. For example, the cost of equipment ordered in 1983 by kolkhozes in Kherson Oblast exceeded the funds available for this purpose by 10 million rubles.

With the aim of raising the profitability of agricultural production and strengthening the economy of sovkhoses and kolkhozes, every year between 1983 and 1985 they have been allocated 9.8 billion rubles from the state budget for surcharges on purchase prices. These additional charges are paid to low-profit kolkhozes and sovkhoses at the time the products are delivered to the state. The more products that are sold, the more additional payments the farm receives. Thus, the farms have a direct economic interest in increasing their output. However, investigations have shown that in many cases these supplemental payments are made to highly profitable sovkhoses and kolkhozes that could get by without them, which is detrimental to the farms that are operating under unsatisfactory economic conditions. There is evidence of a negative trend in which the sums of the surcharges do not correspond to the indicators for fulfillment of the plan for output of plant industry and animal husbandry products. For example, in 1984 in the Kirghiz SSR the plan for meat production was exceeded by 1.3 percent, and the plan for milk production was exceeded by 4.1 percent, but the additional payments for these products exceeded the plan by 37.2 percent. Farms in the Georgian SSR exceeded the plan for meat sales by 4.7 percent and the plan for milk sales by 1.5 percent, while the additional payments exceeded the plan by 22.8 percent.

Financial organs must analyze the situation and work with agricultural organs to make suggestions for reviewing the surcharges on purchase prices at various farms. At the same time there should be a review of the lists of low-profit and unprofitable sovkhoses that are receiving budget subsidies for expanding production. In spite of the increase in purchase prices and the establishment of surcharges, the number of sovkhoses receiving these subsidies has increased in some union republics. Apparently the proper state approach to this matter

has not been taken, and financial organs have not demonstrated the required high standards.

Investigations have shown that in a number of cases economic incentive and bonus funds for managers and specialists are formed not as the result of work well done, but through the violation of existing provisions for the formation of funds and through false reporting. For example, at 12 of 26 farms under the Moscow Oblast Poultry Factory Administration, unwarranted payments from the economic incentive fund for 1983 results totalled 193,000 rubles. This same administration set aside 15,000 rubles for unwarranted bonuses for managers and specialists for the profit that was earned.

Rayon agro-industrial associations have been granted the right to centralize some of the assets in the production development, economic incentive, social and cultural activities, and housing construction funds. In those places where these issues are given serious attention, centralization of funds is an effective means for increasing production efficiency, and it helps solve some of the immediate problems involving the expansion of production throughout the rayon as a whole. Assets in the economic incentive, social and cultural activities, and housing construction funds are used to aid kolkhozes and sovkhozes that are operating under less favorable conditions. However, as investigations have shown, these funds often go unused for a long time. It has become quite a common practice for bonuses to be awarded to the management personnel of rayon agro-industrial associations using these funds, without taking into account the actual contribution made by each worker to raising the crop yield, increasing livestock productivity, and strengthening the economy of the kolkhozes and sovkhozes.

For instance, in Rostov Oblast agricultural management personnel in the oblispolkom recieved bonuses from the central economic incentive fund, contrary to the statute in force for specialists in this category. Workers in rayon agro-industrial associations also received bonuses from this fund. In spite of the fact that plan for gross production output for the oblast was met by only 76.5 percent in 1984, and the profit plan by only 42.1 percent, a total of 28,300 rubles was allocated from the centralized economic incentive fund for bonuses for the management personnel of the oblast administration; this is 3.5 times higher than the bonuses called for in the statute in force for this category of worker. One of the significant shortcomings in the expenditure of the centralized economic incentive fund in Rostov Oblast is that in accordance with the provisions worked out there for awarding bonuses to management personnel, only one-third of all the bonuses are used to encourage high final results.

Inspections made by financial organs indicate that in many cases kolkhozes are violating the system established for utilizing budget allocations for financing planned expenditures. For example, at the "Utro" kolkhoz in Vologda Oblast budget funds were used to build an office for the managing board. The "Komsomol" kolkhoz in Ashkhabad Oblast, Turkmen SSR, spent about 3000 rubles of budget allocations on harvest holiday celebrations. The "Leningrad" kolkhoz in Leninabad Oblast, Tajik SSR, and several other farms in the republic used budget allocations earmarked for financing planned expenditures to pay bonuses to kolkhoz farmers and to pay membership dues to several voluntary societies.

The first task of financial organs consists not only in substantiating facts and eliminating shortcomings but in painstaking daily work to insure the fullest and most strictly directed use of the funds budgeted to finance planned expenditures at less profitable kolkhozes.

The October (1984) Plenum of the CPSU Central Committee adopted a long-term program for land reclamation, the fulfillment of which will make it possible to ensure stable agricultural production. In the 11th Five-Year Plan approximately 50 billion rubles were allocated for land reclamation measures. In the 12th Five-Year Plan allocations for land reclamation will exceed 60 billion rubles. Financial organs should devote constant attention to issues involving the financing of land reclamation, one of the most important national economic tasks.

Organizations included in agro-industrial associations--kolkhozes and sovkhozes, enterprises that supply them with material and technical means (Selkhoztekhnika and Selkhozkhimiya [Agricultural Chemical Association]), and enterprises in the meat, dairy, and food industry are united into a single body. This unity is the main principle behind the resolution of fundamental issues involved in improving the agro-industrial complex. At the same time, however, there is still evidence of some negative trends in the operation of service organizations. The CPSU Central Committee and the USSR Council of Ministers issued a decree on 7 July 1983 "On Improving Economic Relations between Agriculture and Other Sectors of the National Economy," which called on rayon agro-industrial associations to take steps to improve these relations. With this aim, rayon agro-industrial associations were granted the right to approve estimates of work performed when profitability was at 8 percent. In a number of cases, however, a superficial approach was taken to this indicator.

When approving estimates for work performed by Selkhozkhimiya, some rayon agro-industrial associations are calling for an unwarranted increase in overhead expenses, and a different level of expenditures included in production costs. As a result, kolkhozes and sovkhozes are being forced to pay unjustifiably large sums for services and other operations. In many cases, the approved estimates do not ensure profitable operation of the service organizations.

The right to approve estimates was meant to bring about a maximum reduction in kolkhoz and sovkhoz expenses, and to provide profitable operation of enterprises serving agriculture. An unjustified decrease or increase in estimates hurts kolkhozes, sovkhozes, and Selkhoztekhnika and Selkhozkhimiya enterprises. When approving estimates for work performed, organizations must be guided strictly by the applicable provisions.

Poor control over the farms' use of loans is a serious flaw in the work being done by financial organs. In 1984 the debts owed on long-term State Bank loans increased by 1.5 billion rubles, and the debts owed on short-term loans increased by 1.9 billion rubles. The total debts owed by kolkhozes on long-term loans represent a sum four times greater than the annual capital investments. These increases are the result of the fact that many kolkhozes do not deduct enough money for the indivisible funds. In addition, financial organs are not raising the issue of proper distribution at kolkhozes of funds earmarked for savings and consumption before the appropriate republic and oblast organs. Kolkhozes receive large long-term loans for capital investments, but do not consider themselves obliged to pay them back.



The loan fund is formed using funds belonging to enterprises and organizations that are in accounts at bank institutions, the bank's statute and reserve fund, and budget funding. Therefore, cancellation of a debt requires that funds be repaid to the State Bank from the budget. Managers of kolkhozes, sovkhoses, and agricultural and financial organs must make a fundamental change in the approach to providing financial assistance to kolhozes and sovkhoses and they need to reorganize their economic thinking.

Financial organs should work in close contact with bank institutions and establish strict control over prompt repayment of loans. If loans are not repaid, they should not be granted to those farms. This is how to exert a financial and credit influence on the economic operation of an enterprise. Loans can be granted only when kolhozes and sovkhoses work out practical measures to improve their economic condition, which will ensure repayment of the borrowed funds.

Recently a number of important steps have been taken to improve the organizational structure used in the management of agricultural production. In a number of cases, however, one can still find duplication of management responsibilities. The management apparatus in agriculture sometimes grows significantly more rapidly than the total number of workers.

It should be noted that there is also an increase in middle management personnel after agricultural management organs are reorganized. Investigations have shown that in certain union republics there have been serious violations in the structure of the work force and in expenditures on management of the agro-industrial complex, and there has been inadequate control over the implementation of measures to reduce the size of the management apparatus and to cut down on the costs involved in maintaining this apparatus. A number of cases were discovered in which the staff of rayon and oblast agricultural administrations exceeded the maximum number outlined in the norms. For example, these norms were exceeded in the Belorussian SSR, Latvian SSR, and the RSFSR. Subdivisions for economic services for the management apparatus of kray and oblast agricultural administrations exceeded the established norms in Krasnodar Kray, Vologda Oblast, and other oblasts in the RSFSR.

After a report on its fulfillment of quotas for reducing the size of the management apparatus, the Kuybyshev Oblast Selkhoztekhnika Production Association reinstated 41 jobs on the staff list that had been cut back; maintaining these jobs cost 56,100 rubles. The same thing was done at the oblast land reclamation and water resources administration. The Krasnodar Kray Agricultural Administration and Selkhozkhimiya association failed to meet the quotas for reducing the management staff, as did a number of rayon Selkhozkhimiya associations in Kuybyshev Oblast.

It is absolutely unacceptable to increase the agricultural management apparatus at the expense of workers in interfarm organizations and kolkhozes. Violations of this nature were discovered in the Neftegorskiy and Syzranskiy rayon agricultural administrations in Kuybyshev Oblast.

In a number of cases, small subdivisions consisting of two or three units have been created in the organization of new agricultural management organs. This

resulted in an unwarranted number of management personnel. In the Azerbaijan SSR intersectorial relations and planning departments, consisting of two or three workers, were created in seven rayon agricultural administrations. In the Vologda Oblast Agricultural Administration 9 assistant manager positions were approved, and 10 were approved in the Krasnodary Kray Administration. The ratio between the number of senior specialists and specialists was violated in 3 rayon agricultural administrations in Vologda Oblast and in 5 in Krasnodar Kray.

Strict control must be established over adherence to staff discipline. All violations of the laws in force concerning staffing and wages should be reviewed by higher agricultural management organs. Financial organs should take full advantage of the rights they have been granted, including transferring matters to people's control organs in order to recover unauthorized expenditures and to halt financing.

Resolution of the large-scale issues in the development of agricultural production and the entire agro-industrial complex requires a dramatic improvement in personnel work. People who are politically literate, conscientious, and knowledgeable should be found in all sectors of the financial system. Therefore, it is necessary to improve professional training and the selection and placement of personnel.

Unfortunately, financial organs often hire people who have not had any special training. Of all the people working in agricultural finance, 45.8 percent have a higher education. In a number of union republics--Azerbaijan, Lithuania, Moldavia, Latvia, Tajikistan, Turkmenistan, and Estonia--100 percent of the specialists are in this category. At the same time, few of the specialists in Uzbekistan and the RSFSR have a higher education. The turnover of personnel is still high.

In a number of cases, workers without specialized education have been appointed to nomenklatura positions. For instance, a person who had graduated from a medical institute was appointed senior economist in the agricultural finance department of the Dzhezkazgan Oblast Financial Department in the Kazakh SSR. Unfortunately, cases of this nature are not isolated. High personnel turnover and inadequate professional training have a negative effect on the monitoring of financial and economic activities of agricultural enterprises.

Economists involved in agricultural financing are often loaded down with work that does not fall into their area, and it usually involves inspections at construction and industrial enterprises. For example, agricultural finance specialists working in financial organs of the Georgian SSR were assigned duties at construction, housing and municipal, domestic services, and other enterprises and organizations not related to the agro-industrial complex.

The Collegium of the USSR Ministry of Finance, guided by the directives of the Politburo of the CPSU Central Committee regarding current personnel policies, pointed out the need to improve the selection and placement of personnel in all sectors of the financial system. In working with personnel, democratic principles must be developed, and the practice of appointment by election and competition to fill positions should be expanded. There must be a constant

supply of fresh manpower, and experienced personnel from the older generation need to be combined skillfully with young, promising workers.

Our country has entered the final year of the 11th Five-Year Plan. A major step forward was made during this five-year plan along the road to strengthening the economic and defensive might of the Soviet state, improving the people's standard of living, and spreading socialist democracy.

The Communist Party and all Soviet people are making vigorous preparations for the 27th CPSU Congress. The report that comrade M. S. Gorbachev was elected general secretary of the CPSU Central Committee was met with the ardent approval of the the party and all the Soviet people. Our country's workers see the decisions of the special March (1985) Plenum of the CPSU Central Committee as yet more evidence of the unshakeable Leninist course of the CPSU, and of the continuity of its policies.

By working persistently to improve their style and methods, financial organs are exerting an active influence on enterprises and organizations in the agro-industrial complex. First and foremost, they should set an example through the model organization of their own work, and by showing a strong sense of responsibility for their assigned tasks. A more critical approach should be taken to mismanagement, violations of performance discipline, and wasteful use of state funds allocated for the further development of agricultural production.

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## AGRO-ECONOMICS AND ORGANIZATION

### ENFORCING CONTRACT OBLIGATIONS IN APK ENTERPRISES

Moscow SOVETSKAYA YUSTITSIYA in Russian No 4, Feb 85 pp 6-7

Article by Yu. Shuplyakov, chief of the Legal Administration and Arbitration of the RSFSR Ministry of Agriculture: "Work on Strengthening Legality of Economic Relationships of APK Enterprises"/

Text The RSFSR Ministry of Agriculture and its organs in the various areas are devoting constant attention to the extensive use of legal means for further increasing the efficiency of kolkhoz and sovkhoz production. One half of the draft contracts, and more than 250,000 have been concluded by farms, are examined and approved in advance by lawyers. One out of every five lawyers submits a report setting forth his disagreements. Penalties amounting to 192 million rubles have been imposed for violations of contractual agreements. Overall, the economic interests of farms amounting to more than one quarter of a billion rubles are protected annually with the aid of the legal service. The agricultural lawyers in Moscow, Leningrad, Kurgan and Kaluga oblasts have proven their worth. The positive experience of lawyers in Stavropol Kray and Kalinin Oblast, following a joint study with the RSFSR Ministry of Justice, was examined and approved by the Presidium of the union Council of Kolkhozes and the Board of the USSR Ministry of Justice.

Earlier, inter-farm legal groups served as the chief form of legal services for kolkhozes and sovkhozes. In view of the fact that the agricultural administrations had become working units of RAPO's /rayon agricultural production association/, the legal service was subjected to reorganization. The inter-farm legal groups were eliminated. At the same time, the post of senior legal consultant was added to the table of organization of 1,500 agricultural administrations of rayon executive committees. Legal departments and groups were organized in a number of oblasts, krays and autonomous republics. Some of the legal consultants of inter-farm groups were transferred over to agricultural administrations and others -- to kolkhozes and sovkhozes. The strengthening of the legal service at the administrative level made it possible to solve in a planned manner those problems concerned with increasing this service on the farms and, as a result, the overall number of lawyers working within the ministry's system increased by 400 and reached 3,500. Since owing to a shortage of lawyer personnel it is impossible at the present time to ensure that all of the kolkhozes and sovkhozes have official legal consultants (there are presently 1,380 of them), a decision was handed down calling for an expansion in the practice of providing legal services on an



inter-farm basis. The system for providing such service, taking into account the changes that have taken place in agricultural administration, is set forth in the Instruction for Providing Legal Services for Agricultural Enterprises and Organizations. A solution has been found for the problem of awarding bonuses to lawyers engaged in providing legal services on an inter-farm basis.

The observance of legality in economic relationships is impossible in the absence of efficient regulation of the work of each service included on the working staff of rayon and oblast agroindustrial associations. Taking these requirements into account, the Main Administration for Inter-branch Relationships of the RSFSR Ministry of Agriculture, jointly with the legal administration, developed model statutes for the departments and groups of rayon and oblast agroindustrial associations and it published a collection of normative documents on operational problems of the APK /agroindustrial complex/. At the same time, seminars were organized for the leaders and specialists of working staffs of agroindustrial associations for the purpose of studying the new normative documents for controlling legal and economic interrelationships, the accounting method and the organization of control over the carrying out of contractual obligations. Special attention was given to the fact that the role played by contractual interrelationships among APK partners has increased even more with the formation of agroindustrial associations.

Exercises were carried out in the agricultural administrations and also in the schools for improving skills. In the process, the specific nature of the branch was taken into account. Later these specialists participated in the carrying out of seminars in rayons, to which (with the same program) the leaders and specialists of kolkhozes, sovkhozes and also RAPO enterprises and organizations had been invited.

Moreover, in view of the prevalence in some oblasts, krays and autonomous republics of incidents of excessive charges being imposed upon the farms by the service and procurement organizations, measures were undertaken aimed at combining the efforts of the economic, legal and control-auditing services in the interest of combatting such overcharges. Plans were developed for joint measures aimed at ensuring accounting discipline and protection of the products, equipment and material values. Interesting work was carried out in this regard in the Agricultural Administration of the Executive Committee of the Kurgan Oblast Council.

By agreement with the APK partners and with their participation here, a check was carried out in a number of rayons on the following questions: the quality of the mixed feed being supplied to the farms and the correctness of the accounting for this feed, the carrying out of contractual obligations by the rayon associations of Sel'khoztekhnika and Sel'khozkhimiya, the correctness of the procedures concerned with the acceptance and delivery of products and the computations for output by enterprises of the dairy industry, meat industry and the grain products association.

In addition to uncovering excessive charges, such joint checks made it possible to undertake measures aimed at eliminating violations and revealing the causes and conditions which gave rise to them. In those instances where solutions

were not found in a rayon for vexing problems, they were examined by specialists from the oblast agroindustrial association. In the Sefakulevskiy RAPO, incidents were uncovered of prices for services rendered by Sel'khozkhimiya being inflated in the accounts with kolkhozes and sovkhozes. No solution was found for this problem within the RAPO framework. Following a check by specialists attached to the oblast Sel'khozkhimiya Association, the total amount of the overcharge was returned fully to the farms. Similarly, a dispute concerning raised accounting prices by the rayon Sel'khoztekhnika Association was also resolved in this rayon. The guilty parties were held accountable from both a disciplinary and material standpoint. Although in accordance with existing legislation RAPO is authorized to institute proceedings against procurement and service enterprises and organizations for the purpose of obtaining sums of money for the farms representing either overpayments or underpayments (to the farms), provided such actions were not undertaken by the farms themselves, nevertheless such proceedings are instituted only rarely.

Over a period of a number of years, the RSFSR Ministry of Agriculture has been orienting subordinate legal services towards expanding preventive work in the interest of reducing the number of suits being turned over to the courts or submitted for arbitration. The task is one of ensuring that the grievance materials are prepared in a timely and high quality manner and that systematic work is carried out with partners for the purpose of achieving voluntary satisfaction of claims. In this manner the economic interests of the sides are not infringed upon. Neither the courts nor arbitration are burdened with self-evident cases. At the present time, the majority of disputes in Altay Kray and in Kostroma and other oblasts are being resolved in an efficient manner by RAPO means.

Work is being carried out within the associations in connection with the development and coordination of the conditions for contractual relationships. Thus, contracts were prepared in advance in Kurgan Oblast by specialists and lawyers for the delivery of petroleum products with enterprises of the Goskomsel'khoztekhnika and Sel'khozkhimiya associations and with procurement organizations. Seminars are being conducted throughout the oblast with the participation of all lawyers of enterprises and organizations included in an agroindustrial association. Measures have been undertaken which have made it possible to reduce considerably the number of conflicts and pre-contractual disputes. Similar work is being carried out in Murmansk Oblast.

A new development in administrative work is the creation of inter-branch committees within the structure of agroindustrial associations, committees which include experienced specialists. The statutes on these committees are approved during RAPO meetings. Inter-branch legal committees have been formed in Chita and Bryansk oblasts and in Stavropol Kray for the purpose of developing such relationships, for controlling observance of the normative documents for mutual relationships between partners and also for carrying out a preliminary examination of questions raised for the Presidium or for the councils of oblast and rayon agroindustrial associations. Thus, in the statute on the legal committee of the Petrovskiy RAPO Council in Stavropol Kray, it was pointed out that its principal task consists of preparing the questions raised for discussion by the council and organizing and exercising control

over the carrying out of all decisions adopted. When necessary, the committee chairman is authorized to turn to the leader of any enterprise or association and request a required document and to carry out a check on the spot on the actual carrying out of the decisions handed down by the council. Thus the committee is a fully competent working organ. Throughout the year, the legal committee controls fulfillment of the contracts and examines all disputes which arise. In accordance with a recommendation by the committee, the grievance material of a poultry meat combine against kolkhozes and sovkhozes, calling for a fine of 42,000 rubles to be imposed for failing to observe the schedule for livestock deliveries, was rejected as being unjustified. As a result of the work of this committee, a sharp reduction took place in the number of suits turned over to the courts or submitted for arbitration and this produced a savings not only in time but also in funds required for paying the state tax. However, the chief advantage gained from the work of the committee lies in the fact that the RAPO council achieves the fulfillment of contracts by all farms and not just those where such action is favorable to the contractors or procurement specialists. The committee has examined the status of socialist legality and planning, contractual and labor discipline in organizations and at RAPO enterprises and it submitted appropriate recommendations to the RAPO council concerning the need for discussing these matters. It appears feasible, jointly with the RSFSR Ministry of Justice and RSFSR Gosarbitrazh /State Arbitration Commission/, to study the practice of coordinating legal work within the framework of agroindustrial associations and to disseminate available positive experience.

The problems concerned with the protection of socialist property are being examined systematically in the RSFSR and in local agricultural organs. From year to year, with the aid of lawyers, increases are taking place in the reimbursement for damages caused by theft, waste, cattle plague and by shortages and spoilage of agricultural products. Losses caused by plague and animal deaths are still high. Quite often the agricultural organs reproach the farm leaders and specialists for the fact that such losses are not being compensated for adequately. Formalism cannot be tolerated in the matter of evaluating compensation for damages caused by cattle plague. Beyond any doubt, if plague or the loss of animals occurred owing to direct guilt on the part of a worker, that individual must make compensation for the damage. But livestock perish for the most part for reasons which are not dependent upon the workers or specialists: because of diseases, natural calamities and accidents. Thus the planning indicators provide for a definite loss percentage. When computing the total amount of reimbursement for damage, it would be more correct to base such computation not upon the overall total amount of damage caused by disease or the loss of animals, but rather upon how much was caused by a guilty partner and how great a fine was levied. Inspections have revealed that the funds allocated for agricultural development are often diverted for other purposes. The organs of the procurator's office do not always issue protests against illegal decisions handed down in the various areas concerning these matters. The harmonious operation of the agroindustrial complex, in which agriculture plays a leading role, is largely dependent upon the agricultural organs. But we must depend upon receiving assistance from the legal protection organs and from RSFSR Gosarbitrazh /State Arbitration Commission/.

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## AGRO-ECONOMICS AND ORGANIZATION

### PRIVATE PLOT CONTRACT PROBLEMS: DISCUSSION, COMMENTARY

Moscow SEL'SKAYA NOV' in Russian No 3, Mar 85 pp 9-11

[Article by M. Fedotova: "Contract More Valuable Than Money". The article by Sidozenko referred to in "Commentary by the Editorial Board" was published in JPRS Agricultural Report UAG-84-004, 6 Feb 84, p 80.]

[Text] The drawing up of contracts between kolkhozes, sovkhoses and citizens for the raising and purchasing of livestock and poultry and for the purchasing of surplus milk is becoming a more widespread phenomenon. By 1 January 1984, 68 percent of the kolkhozes and sovkhoses had such contracts. The volumes of products procured on the basis of such contracts are increasing. Thus, during the first 6 months of last year, 129,200 more tons of livestock and poultry (in live weight) and 21 percent more milk were purchased from the population than was the case for the same period during 1983.

The above constituted considerable success. But just as with any large-scale economic undertaking, difficulties and discrepancies arise. Today we are publishing several letters on this subject and replies received from the RSFSR Ministry of Agriculture, to whom we sent the letters for checking. Unfortunately, these responses bypass certain vague and important questions. Thus the editorial board is herein providing its own commentary.

And there is still one observation which should precede our discussion. The letters sent in to the editorial board reveal that much depends upon the kolkhoz and sovkhos leaders possessing a good understanding of the importance of the private economy and the contractual system. An understanding which is required for the establishment of mutually advantageous and fair relationships between the private plots and public production. In those areas where the tasks are thoroughly understood and proper action is taken, everybody stands to gain -- the state, the farm and the personnel. Conversely, in those areas where the interests of the LPKh's /private plots/ are neglected and contracts with the population are viewed as being mere blank pieces of paper, large economic losses are inevitable. Thus we have entitled our selection of letters:

#### Somebody Loses...

"Our kolkhoz," wrote A.T. Zaykin, from the village of Kuyezbash in Aurgazinskiy Rayon in the Bashkir ASSR, "concludes a contract with us for the purchasing of milk. The farm is obligated to sell to the suppliers 0.5 kilograms of grain and 0.5 kilograms of mixed feed per kilogram of milk. The



grain sells for 12 rubles and 50 kopecks per quintal. But according to the contractual conditions, the internally produced grain is to be sold at the state purchase prices. I would like to know why this does not apply to us.

Careless work is tolerated in the case of purchases. Milk is accepted from the population in liters and the fat content is not determined on a daily basis. As a result, conscientious individuals tend to suffer while the milk collector makes a decent profit. Owing to just such a situation, my fellow villagers are attempting to sell pot butter on a contractual basis. For 1 kilogram of butter they are credited with 25 liters of milk. But here again a problem arose: commencing in 1983 the purchase prices for milk were raised, whereas the prices for butter remained as they were in the past."

"Dear editorial board! My name is Ryazanova Valentina Karpovna and I live in the village of Maklakovo in Ryazan Oblast, Pronskiy Rayon, where I work at the Kommunar Sovkhoz: I am a calfmaid and my husband is a cow keeper. I seek advice from you and perhaps even assistance. For 3 years in a row we have supplied the state with 1.5 tons of cattle meat and 1,000 liters of milk and annually we have supplied the sovkhos dining hall and kindergarten with hen's eggs (3,000-4,000 eggs annually). From the journal we have learned that people who actively supply agricultural products are in turn provided with mixed feed -- for the meat and milk delivered. We are not being provided with anything. Nor are haying lands being made available to us. We are fortunate that the city of Novomichurinsk is close at hand -- we supply the people with meat and they in turn constantly provide us with food scraps.

"In 1983, on the basis of a contract, five young bulls were taken from the sovkhos for fattening purposes. We read an article in the journal which stated that a 30 percent bonus was to be issued for heavy weight in the animals. We have a standard contract and yet there is no mention in it of such a bonus. We questioned a procurement specialist and he replied that the bonus is issued only to sovkhoses. A neighbor turned over a bull weighing 460 kilograms and did not receive any bonus. We would like an explanation as to when and to whom is such a bonus paid. There are many who would like to know the answer to this question."

There is still another letter -- from V. Litvinov in Sovetskiy Settlement, Yeyskiy Rayon, Krasnodar Kray:

"I work as a vulcanizer at the Sovetskiy Sovkhoz. I accepted bulls at the sovkhos for fattening on a contractual basis. I raised them and subsequently turned them over to the sovkhos. But the amount due me for the increase in cattle weight has still not been issued. A conflict developed. The sovkhos offered to give me feed which I did not accept. I fed the young bulls hay which I had cut down on unuseable land. Of the amount due me, the bookkeeper retains 150 rubles. I did not sign the record for this deduction. The sovkhos administration justifies its action by claiming that "You cut down your hay on sovkhos land." As I see it, our administration is holding back and is not clarifying for the workers the decree concerning a private plot or the assistance to be provided to the private plots. The feed allocated by the sovkhos must be transported by the people themselves and those who lack vehicles must carry it on their shoulders -- indeed, the animals should not be

allowed to starve. For 3 months I carried water for the livestock -- there was no water in the troughs. Although aware of this, the administration did not undertake any measures aimed at correcting the situation. However, the money was still deducted."

For a complete picture -- still another letter.

"We live in the village of Ulyanovka in Nikolayev Oblast," stated L. Korniyenko. "My husband works as a driver at the Prozhektor Il'icha Kolkhoz and I am a salesman in the same village. In 1982 we concluded a contract with the kolkhoz and accepted two young bulls for fattening. Later we fattened and turned over one of our own bulls and one cow. In accordance with the contract, we should have been provided with 1.5 tons of silage and 1.5 quintals of mixed feed for each head. But we received only 2 quintals of mixed feed -- that was all. Four quintals remained on paper, although the chairman signed it and I paid the money. The chief zootechnician did not authorize payment, referring to the fact that we had already fattened and turned over the livestock. When I started to object, he countered by stating that commencing in 1981 my husband and I have been supplied with wheat, mixed feed, bran and grain mixtures. But indeed these materials were given not only to us but to all kolkhoz members. And not according to contracts! The chairman stated: 'What did you do? Did you turn them over for me? You received money for this.'

"Thus the question now arises: why accept these calves on the basis of a contract, indeed somebody raised them and that individual knows the value of the labor he invested: water them twice daily when the well is 600-700 meters distant, feed them three times and remove the farmyard manure. And in the final analysis -- this is the gratitude one receives. I will no longer pursue such a course nor will I advise another to accept a calf on a contractual basis, since the kolkhoz administration is not providing any assistance."

The leaders of the Poltava Kolkhoz imeni Gor'kiy are employing still another approach in the matter of contracts and the attendant obligations. This is discussed in a letter which we prefaced with the title:

And Somebody Finds...

It was only recently that the Kolkhoz imeni Gor'kiy was one of the most backward farms in Novosanzharskiy Rayon. Its production profitability did not exceed 10-12 percent and its livestock husbandry operations generally operated at a loss. An acute shortage of man-power was being felt in all of the production sectors. Indeed, following school, all of the youth invariably attempted to leave the village where the work was very burdensome and where the opportunities for recreation were limited.

However, the situation has now improved noticeably. Eight-grade schools, a palace of culture and kindergartens are now in operation at the central farmstead and in the Livenskiy section and trade complexes have been opened. The streets are covered with asphalt. More and more building personnel are appearing on the farm and house-warmings are becoming a frequent occurrence. In 1984 alone, 38 apartment dwellings were built in the villages -- a fine

indicator. Moreover, two out of every three homes were built using money obtained from cooperation with the kolkhoz, from the fattening of livestock and from turning over milk on the basis of contracts.

It would not be an exaggeration to state that the introduction of the contractual system for raising livestock and purchasing surplus milk and other products is to a considerable degree promoting noticeable advances in the solving of social problems.

In 1981 the kolkhoz turned over 10 young bulls to the village residents for fattening. When they were delivered to the receiving point, it was estimated that the net profit for the kolkhoz came to 1,500 rubles. Cooperation turned out to be profitable for those who took part in this new endeavor. Veteran of kolkhoz labor G. P. Kodyukina raised and turned over at this time a fat young bull, weighing 453 kilograms. For this fattening work, the worker received 738 rubles and 453 kilograms of grain (at the rate of 10 rubles per quintal).

In 1982, 110 young bulls and 222 young pigs were turned over for fattening and in 1983 -- 150 young bulls and 465 young pigs.

In accordance with the contracts, for the raising of livestock the kolkhoz is obligated to sell grain according to the state price and at the rate of 100 kilograms per quintal of weight increase and other feed -- in accordance with the planned production cost, present for the duration of the contract period additional tracts of land at the rate of 0.12 hectares and by means of the free private fund, make tracts available for the grazing of livestock, furnish the assistance required for the construction and equipping of facilities for the maintenance of livestock, allocate the transport vehicles and equipment needed for working the land and procuring feed, ensure free zooveterinary services for the animals, accept the livestock raised within the period stipulated in the contract and complete all accounts with the citizens within a period of 10 days.

The introduction of the contractual system into operations on an extensive scale was preceded by a great amount of preparatory work. During the course of visiting the farmsteads, the members of the kolkhoz party committee, trade union committee, kolkhoz administration and the executive committee of the village soviet determined exactly who required chicks, young pigs and calves and how many. A council headed by the kolkhoz chairman N. M. Kriklya was created for the purpose of assisting in the development of the private plots. The council's staff consisted of 12 specialists, middle echelon leaders and specialists. The work of the council is planned and the responsibilities of the members of this social organization are clearly defined.

Together with the kolkhoz administration and the executive committee of the village soviet, the council for assisting in the development of the private plots adopted recommendations which called for the kolkhoz to conclude contracts for the procurement of milk and the fattening of livestock. In particular, the following was called for. For each kilogram of weight increase, the kolkhoz pays 1.38 rubles and sells grain at the rate of 10 rubles per quintal. If the cattle delivered are in a high state of nourishment and their weight is in

excess of 350 kilograms, a bonus of 35 rubles is issued and if the weight of a calf is more than 4 quintals the bonus is increased to 50 rubles. For a quintal of weight increase in hogs, 170 rubles is paid and if the animals weigh more than 210 kilograms when delivered, a bonus in the amount of 10 rubles is issued; 3.5 quintals of grain forage is also sold at the rate of 10 kopecks per kilogram. Those who raised calves are also credited with 7 man-days added on to their length of service. Those who engaged in the fattening of young pigs -- five man-days.

All of the documentation required was formulated and displayed in the office of the kolkhoz on a special colorful panel entitled "Because We Live in a Village."

Work was found for the communists, deputies, propagandists and members of the council for assisting in the development of private plots. They organized meetings in all of the populated points and they conducted individual discussions.

They carried out their propaganda work both in word and action. The secretary of the party committee, the chairman of the trade union committee, and the chairman and secretary of the village soviet and other leaders all took some calves and some young pigs from the farm for fattening.

The family of kolkhoz bee-keeper V.I. Belokonya set a fine example in the production of livestock husbandry products on a private plot. Over the past 2 years, it supplied the receiving point with 3,161 kilograms of meat and 2,700 kilograms of milk. This family earned 6,068 rubles. The children provided assistance in tending the animals: Vasiliy, who recently returned from the ranks of the Soviet Army and who now works in a kolkhoz construction brigade and the young daughters Lyuba and Lyuda. Using money earned, they have commenced construction work on a spacious home for Vasiliy, one having all of the necessary buildings.

Included among those who are actively participating in the fattening of livestock in accordance with the contractual system -- drivers M.A. Pyavka and A.A. Krets, fitter S.F. Komissar, kolkhoz worker G.P. Chervona, department manager M.Ya. Kostogriz and others. Nor are the pensioners standing idly off to the side. Former kolkhoz chairmen M.D. Brovko, G.S. Ostrevnoy and M.M. Paran'ko were some of the first to undertake to raise young bulls on their private plots.

The all-round assistance that the kolkhoz is providing to the owners of livestock is promoting growth in the number of cows among the population. Thus the kolkhoz awarded heifers as gifts to the young families of combine operator V.G. Kalinichenko, agronomist S.G. Zavorotniy, veterinary worker V.S. Kobylan and tractor operators N.M. Moshury and V.I. Moshury. In all, 120 heifers and cows were sold to the population over the past 2 years.

Mention should be made concerning milk purchases from the population. This work is also being carried out in an organized and efficient manner. There are four mounted patrols at the kolkhoz and each has a horse-drawn carriage at its disposal. In the morning the farm managers leave their milk at a prearranged location. The people no longer have to hurry to a special point. During the



dinner period the cows are milked in the pasture, with the milk being delivered immediately. During an average summer day, the procurement specialists each accept 4-5 quintals of milk. They perform fine work since they are interested in the final result: they are paid 3 kopecks for each kilogram of milk procured. Nor are the suppliers offended, since they are paid 31.6 kopecks for each liter of milk having a basic fat content. In addition, they are issued feed and also tracts of land for the grazing of cows and for procuring feed for the winter. The mounted patrol delivers the mixed feed and buttermilk directly to a home.

In 1983, 95 tons of meat and 185 tons of milk were purchased from the population and this amounted to 25.4 and 7.1 percent respectively of the total amount sold by the kolkhoz to the state. In 1984 -- 100 tons of meat and 300 tons of milk (1.4 tons per cow).

"Such collaboration," stated kolkhoz chairman N.M. Kriklya, "is economically justified and profitable. First of all, the livestock raised under contractual conditions are characterized by a high state of nourishment and thus the procurement organizations must pay a higher price for them. Secondly, the kolkhoz delivers meat raised on private plots over and above its plan and thus it receives a 50 percent bonus. In addition, by producing meat on the basis of contracts with village residents, the kolkhoz realizes a considerable savings in feed. The owners of village farmyards use garden and kitchen waste scraps as livestock feed and no longer is there a need for erecting additional livestock facilities. The kolkhoz members also profit -- indeed they are able to strengthen their family budgets by performing work within their capability and with fewer problems."

At the present time, the money obtained for the fattening of livestock and for delivering milk on a contractual basis is being used by the people mainly for the construction of housing. The kolkhoz administration and the executive committee of the village soviet are devoting a great amount of attention to this problem: a special staff has been created, a special store for building personnel has been opened in the village and extensive use is being made of adobe and other local building materials. Even before the construction commences, water and electric lines are installed along a future street. The entire village is providing assistance to the builders in making the adobe, erecting the walls and installing the roofs. The kolkhoz professional trade union committee, the professional groups and the deputy posts in the work collectives are all displaying concern for these matters. Construction is being carried out on an extensive scale using credit extended by the kolkhoz administration. Monetary loans are being made available for the young families. During this period, an increase took place in the production of goods on the kolkhoz farms -- without taking into account that which was raised or purchased from the population.

Thus, mutually advantageous cooperation between the kolkhoz and the population is making it possible to intensify the production of goods and to solve social tasks.

P. Zhabotinskiy  
Novosanzharskiy Rayon, Poltava Oblast

## Replies by the Ministry

"According to a report received from the Bashkir SSR Ministry of Agriculture, the letter by A.T. Zaykin was checked during a visit to the area. Based upon a decision handed down during a meeting of the administration of the Kolkhoz imeni Il'ich in Aurgazinskiy Rayon, with subsequent approval during a general meeting, it was established that the kolkhoz will sell 0.5 kilograms of grain and 0.5 kilograms of mixed feed to the kolkhoz members per kilogram of milk.

The kolkhoz sells wheat in various amounts (purchase price 10 rubles and 80 kopecks) and rye (purchase price 13 rubles and 10 kopecks) and thus it was established during the meeting of the kolkhoz administration, with subsequent approval during a general meeting, that the grain due for the milk is to be sold at the price of 12 rubles and 60 kopecks.

The milk is accepted from the population in liters and the fat content of the milk delivered is determined alternately among the kolkhoz members. For a basic fat content of 3.7 percent, milk from the population is delivered at a low fat content -- 2.8-3 percent and thus when crediting the milk a deduction is carried out from the physical weight.

As is known, the purchase prices for whole milk have been raised, whereas those for butter have remained at the former level."

L.F. Shumskiy, acting chief of the Main  
Production Administration for Uralskiy Rayon  
of the RSFSR Ministry of Agriculture.

The ministry has examined the letter of Ryazanova Valentina Karpovna of the Kommunar Sovkhoz and it reports that Decree No. 27 of the CPSU Central Committee and the USSR Council of Ministers dated 8 January 1981 authorizes sovkhozes and other agricultural enterprises and recommends that kolkhozes conclude contracts on a strictly voluntary basis with kolkhoz members, manual workers, office workers and other citizens residing on their territories, who are conscientiously participating in social production and also with pensioners, for the raising and purchasing of livestock and poultry and for the purchasing of surplus milk.

These contracts set forth the obligations of the kolkhozes, sovkhozes and other agricultural enterprises with regard to furnishing assistance to kolkhoz members, manual workers, office workers and other citizens, in supplying feed and making tracts of land available for haying purposes and also for the grazing of livestock.

At the same time, we wish to state that the bonus added onto the purchase prices for young cattle of a raised weight is paid to kolkhozes, sovkhozes and other agricultural enterprises and organizations. Effective directive documents make no provision for paying such bonuses to the population.

## Commentary by the Editorial Board

A village reader who supplies his own address and place of work and who has "questionable" relationships with a public farm, as a rule does so in a

responsible manner after weighing all of the consequences. Thus such letters are deserving of serious attention: one must read each line and, as the saying goes, between each line. Look and take note of how obvious are the "loss areas" in work by the population aimed at delivering products of the private plots to procurement organizations, including to one's kolkhoz or sovkhov: insufficiently thorough selection of procurement personnel, receivers and collectors and weak control over their work; frequent incidents involving false weights, reductions in the grade of the products, fat content and so forth, rudeness and a lack of respect for the collectors. All of this tends to frighten people against maintaining good relationships with the procurement organs and against concluding contracts and it tends to suppress a desire to work at maximum capability.

Quite often the relationships do not proceed well for the simple reason that the kolkhoz administration organizes relationships with the private plots, which are advantageous for it, without proper publicity and in the absence of clear explanations of the contractual obligations.

It is unfortunate that the chief of the main administration L.F. Shumskiy did not attach importance to the fact that milk is actually being accepted at the kolkhoz, despite the rules, not in kilograms but rather in liters, which is not the same. The phrase from the response which held that the fat content of the milk is determined alternately was not entirely clear. And particularly: how often? (possibly just once every 10 days). And why is it that all of the private plot cows supply milk having such a low fat content? Finally, what does the kolkhoz administration plan to do in the interest of raising the quality of the milk being obtained on the LPKh's private plots? The determination of the fat content -- is a delicate process and one which requires thoroughness, accuracy and honesty on the part of a laboratory worker.

The increase in the purchase prices for milk, while retaining the former prices for butter (the production of which requires a definite amount of milk) leads to a situation wherein the suppliers of products produced on LPKh's strive nevertheless to deliver butter (without deceiving or overcharging), while the procurement specialists and farm leaders wish as much as possible to obtain milk -- in this instance the farm gains more. But as a result of such "tournaments," no increase takes place in the milk or butter. This is also a question which requires more thought.

Quite often bewilderment and disagreement are expressed in the letters concerning the existing system for awarding bonuses for a high state of nourishment in livestock fattened on the basis of a contract: the entire additional payment established by the state for the purpose of encouraging the fattening of full-weight livestock on the farms is thus turned over to a kolkhoz or sovkhov. Experience has shown that this method fails to stimulate the suppliers into fattening livestock to high weight conditions.

We are giving thought to this problem. How many people is it possible for Ryazanov to feed: the city-dwellers are supplied with milk (in the search for livestock feed and for the purpose of obtaining income) and products are delivered to the dining hall, the kindergarten and the sovkhov. Moreover, both work in a difficult area -- livestock husbandry. A great amount of work is involved here and also thrifty enterprise! It is a wonder that enough people

are available. With regard to the acquisition of feed, the sovkhos places them in a difficult if not ambiguous position. Indeed, it is almost impossible to feed such a number of livestock without assistance from a public farm.

Something is wrong in the interrelationships between the Kommunar Sovkhoz and V. Litvinov: he is authorized to obtain feed from the sovkhos and the sovkhos is obligated to allow any one of its workers (those maintaining livestock on private plots in accordance with the norm) to cut down hay on unsuitable lands and without a contract. And improper actions were taken at the Prozhektor Il'icha Kolkhoz with regard to the family of L. Korniyenko. All of this requires a thorough inspection and an analysis of use of the contractual system on these farms, normalization of the situation and the creation of strong interest by both sides in the production of valuable products.

P.M. Zhabotinskiy in Poltava Oblast pointed out rather convincingly that the contractual system can be mutually advantageous and strong if both sides conduct themselves in an exemplary manner. A great amount of work was carried out at the Kolkhoz imeni Gor'kiy in behalf of the workers and for strengthening the village. In addition, a maximum amount of support was provided for the private plots and for developing the infrastructure (roads, schools and medical institutes) and assistance was furnished to the kolkhoz members in carrying out housing construction.

Unfortunately, the operations of the administration of the Kolkhoz imeni Gor'kiy are hampered by controversial problems. This applies to the awarding of bonuses for the delivery of heavy weight livestock and to the inclusion of additional man-days in the length of service computation.

"At many kolkhozes in the Ukrainian SSR, extensive use is being made of the unjustified practice of crediting citizens with man-days and wages for raising livestock on private plots on a contractual basis, the payment for which is made in keeping with the state purchase prices. Such actions are in conflict with the instructions on working conditions for home-workers in agriculture." This quote was taken from an article by the deputy chief of the Main Administration for Subsidiary Enterprises and Trades, Subsidiary Farms and Private Plots of the USSR MSKh /Ministry of Agriculture/ V. Sidorenko entitled "Private Plots of Citizens," published in the journal EKONOMIKA SEL'SKOGO KHOZYAYSTVA /Agricultural Economics/ (No 11, 1983). This article provides detailed information for the economists and members of the administration of the Kolkhoz imeni Gor'kiy and also other farms which use this system of stimulation; one may argue with the author as to whether or not weighty arguments and economic justifications are being held in reserve. Man creates and changes the instruction in conformity with the changing demands of life. It would be interesting to hear exactly what the farm leaders and the kolkhoz and sovkhos economists and also practical workers think about this vexing problem.

"A summation of the labor," it is further stated in the article, "expended for the raising of livestock on private plots, the payment for which is carried out based upon state purchase prices, with labor in public production and also the crediting of additional wages are illegal, since they are used by a citizen who does not participate in the formation of the public consumption funds. Moreover,



the payment of wages to the population for the raising of such livestock should have been carried out twice in this instance, since the value of the payment for labor expended for raising the livestock and poultry was stipulated in the state purchase prices."

In view of this explanation, we are obligated to warn those who entertain doubts as a result of the correspondence received from Poltava Oblast: why is it, they ask, that they award bonuses for achieving high weight conditions in livestock delivered at the Kolkhoz imeni Gor'kiy and yet we do not receive such bonuses? Why are man-days added to their length of service and yet we are not extended this privilege?

The existing instructions and conditions mentioned by V.I. Sidorenko are mandatory for all those whose activities are affected by them. But is the mentioned instruction on the working conditions of home-workers truly that comprehensive and general purpose in nature? In particular, do we have a good basis for labeling as home-workers those who during the day work in public production and in the morning and evening they feed the same kolkhoz livestock in their barns?

It bears mentioning that the question regarding bonuses for high weight conditions in livestock excites many people who are engaged in carrying out fattening operations. The complete awarding of a bonus by a kolkhoz, sovkhos or procurement office arouses understandable dissatisfaction. And if the contractual conditions are carried out only by one side, the awarding of such a bonus would appear to be unsound. It would seem that the system for awarding bonuses requires a more flexible arrangement. Perhaps there is no need for establishing a single form for contractual relationships, but rather they should be developed depending upon local conditions, traditions and opportunities. Today there are other considerations and new experience is being accumulated in contractual relationships and in use of the incentive system. This is true in particular at the Trans-Carpathian Agricultural Experimental Station. Another approach, convincing computations and other conclusions. New developments in management and science must be studied in a thorough manner.

One fact remains very clear: in all instances, certain methods are required for stimulating the production of goods on the LPKh's and for ensuring that this process is not restrained.

The mail received by the editorial board provides us for reflection certain polar variants for interrelationships between public production and the private plots: in some instances -- close, mutually advantageous and valid collaboration and in others -- neglect of the needs and interests of the LPKh's and in some areas even attempts to undersupply, employ cunning and to infringe upon someone else's interests.

Certainly, the first path is the correct and most fruitful one.

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AGRICULTURAL MACHINERY AND EQUIPMENT

IRRIGATION EQUIPMENT FOR COTTON FIELDS -- FOLLOW-UP COMMENTARY

Sprinkler Equipment Problems, Outlook

Tashkent PRAVDA VOSTOKA in Russian 14 Feb 85 p 2

/Article by N. Bespalov, doctor of agricultural sciences, professor and deputy general director of the Soyuzkhllopok Scientific Production Association; K. Mirzazhanov, doctor of agricultural sciences, professor and head of a department at the All-Union Scientific Research Institute of Cotton Growing; F. Sattarov, candidate of agricultural sciences and head of a laboratory for irrigation and irrigation equipment at the All-Union Scientific Research Institute of Cotton Growing: "Artificial Rain Is Required and Also An Instrument for Determining the Need for Such Rain"/

/Text/ Irrigation work is still only weakly mechanized and automated in cotton production. Special attention was focused on this fact during the 18th Plenum of the Central Committee of the Communist Party of Uzbekistan, where it was stated in particular, "...more attention must be concentrated on those problems concerned with the economic effectiveness of land reclamation and the development of promising irrigation technologies." As yet, these technologies are not being employed extensively in farming practice; more than 30 million man-days are being expended annually for the carrying out of irrigation work in the republic. This laborious work is being carried out by hundreds of thousands of irrigation specialists.

Meanwhile, science and leading practice are advancing specific methods today for overcoming these difficulties, methods which have undergone extensive experimentation. Let us examine some of them.

Experimental irrigation of cotton, using sprinkling units, was started back in the 1930's. And even then it was clear that this irrigation method, under certain conditions, possessed a number of advantages over the traditional furrow irrigation method. A large-scale scientific experiment carried out in 1981-1984 by SoyuzNIKHI /All-Union Scientific Research Institute of Cotton Growing/ on meadow-alluvial, light sierozem and takyr type soils in Tashkent, Samarkand, Dzhizak and Kashka-Darya oblasts revealed that sprinkling irrigation consumed 40 percent less water than the furrow irrigation method and produced an increase in the cotton yield of 3-4 quintals per hectare.

The DDA-100M sprinkling machine provided good service for a period of several years at the Pakhtaaral Sovkhoz and this also enabled the scientists and specialists to draw some very promising conclusions. In addition to producing

a savings in the use of water during irrigation, the sprinkling unit also made it possible for the cotton plants to profit more from fertilization, the microclimate of a field was improved, ground waters did not rise, secondary salinization was prevented and the process of irrigation erosion was halted.

Many other experiments were carried out, all of which served to confirm that the sprinkling method of irrigation was most acceptable on soils of a light mechanical structure or in a zone of hillocky, ridged or barchan sand dunes, which are being developed today in a number of oblasts throughout the republic.

The results of scientific research work carried out on the sands in the central Fergana region revealed that if the sands had a high water permeability 35 cubic meters of water per hectare would be consumed over a period of 1 minute and over the course of an hour -- 2,100 cubic meters. In addition to causing a tremendous overexpenditure of water, this also promotes a rapid withdrawal of mineral fertilizers from the soil and the water logging and salinization of neighboring fields where the soil is heavier. Nothing of this nature occurred when the irrigation was carried out using sprinkling units. In short, it is apparent that in addition to other progressive methods, sprinkling must occupy a proper place in measures directed towards the mechanization and automation of cotton irrigation operations. This will produce a savings in water, raise the yields, reduce the expenditures of manual labor, prevent the secondary salinization of soils and ensure more efficient utilization of mineral fertilizers.

Why did this problem arise? New sprinkling equipment is needed. All of the tested means, despite the results obtained, are ill-suited for cotton fields and other row crops. They cannot be moved easily about the fields and they are extremely power and metal intensive. A solution can and must be found for the problem of creating a reliable unit which meets all of the requirements of the cotton fields. But this requires concentrated effort on the part of scientists and designers working in the area of agricultural equipment, both in subunits of SAO VASKhNIL /All-Union Academy of Agricultural Sciences imeni V.I. Lenin/ and in the Academy of Sciences for the Uzbek SSR and other scientific research institutes and planning institutes and within the framework of a unified overall program. At the same time, the mass training of personnel must be raised to a new level and the machine operators must be taught how to use their equipment intelligently and how to employ the leading technology in a skilful manner. Thus special professional technical institutes for training cadres of irrigation specialists have been created in the Russian Federation and in the Ukraine. This practice should be expanded.

Another equally important problem is that associated with the rapid and accurate determination of the irrigation regimes. It is only fair to state that such regimes have been developed based upon observations carried out over a period of many years. But they are all labor intensive, they require a great amount of time and in many instances they simply are unsuitable. Hence we are still encountering incidents involving insufficient or excessive irrigation in our farming practice.

A specific conclusion appears: a requirement has developed for creating a portable moisture meter instrument, which could be of assistance to an

agronomist, hydraulic engineer or irrigation specialist in rapidly and easily determining when and how much moisture is required for cotton and other crops. The solving of this problem must also be the concern of scientists: mechanics, cybernetics specialists, electronic engineers -- in collaboration with the designers and within the framework of the same unified overall program. The solving of these problems will aid in achieving economies in the use of irrigation water and it will promote the additional development of new lands prior to the arrival of the life-giving waters from Siberia.

Uzbekistan still has non-irrigated lands at its disposal, the irrigation of which would make it possible to obtain not only high yields of cotton but also of grain, vegetable and melon crops and also fruit and grapes. These lands are capable of satisfying not only the internal requirements of the republic but also those of other regions of the country.

#### Other Considerations Raised

Tashkent PRAVDA VOSTOKA in Russian 4 May 85 p 3

/Article by G. Bezborodov, candidate of technical sciences and senior scientific worker at the All-Union Scientific Research Institute of Cotton Growing: "Not Only a Sprinkling Machine/

/Text/ In the article by N. Bespalov, K. Mirzazhanov and F. Sattarov entitled "Artificial Rain Is Required and Also An Instrument for Determining the Need for Such Rain," published in the 14 February issue of PRAVDA VOSTOKA, a question was raised concerning the creation of sprinkling machines for the cotton production zone.

The simplest machines being employed in cotton production are the DDA-100M and the Volzhanka DKSh-64. But the first requires the establishment out on the fields of a network of open earth canals from which large quantities of water are lost through filtration, while the second requires large expenditures of manual labor for straightening out a wheeled pipeline. And although the use of sprinkling in Uzbekistan is limited owing to the natural conditions (according to regionalization data for the land, watering by means of sprinkling is possible on an area of not more than 500,000 hectares), a good machine nevertheless could produce perceptible results for such an area.

But let us examine the problem from a broader standpoint, particularly in view of the fact that it is impossible to solve all of the problems associated with the mechanization of watering by means of the sprinkling method. The area of irrigated land encompasses 3.8 million hectares. The level of mechanized waterings in cotton production is very low -- it does not exceed 1-2 percent. In view of the low KPD /efficiency factor/ for waterings, the great losses of water and the orientation of the farmers towards surface watering, concern must be displayed for the development of equipment for the mechanization and automation of surface watering.

In the future, approximately 100,000 hectares of new land will be developed annually throughout the republic and approximately 120,000 hectares of old



irrigable land will be improved. These tasks can be solved only if the irrigation water is utilized in a thrifty manner out on the fields. Thus there are two problems: the efficient use of water for watering purposes and, in conformity with the requirements of the time, a sharp increase in labor productivity.

A comparative analysis of mechanized and manual labor in cotton production reveals that in the case of plowing one tractor replaces the work performed by 300-350 individuals, inter-row cultivation -- 100-150 and harrowing -- 100 individuals. In the case of watering, the well known PPA-165U watering machine replaces the labor of only 4-5 individuals. In order to obtain comparable indicators, one irrigation specialist would have to be able to control the expenditure of 300-400 liters of water per second. This would require reconstruction of the irrigation network and a change in the organization of the territory.

At the present time, the area of one tractor and field crop production brigade does not exceed 100 hectares and at best (when watering equipment is available) one irrigation specialist is able to control the expenditure of 100 liters per second. In planning the irrigation system for the Golodnaya Steppe region, a brigade with an area of approximately 200 hectares was selected as representing a unit of water utilization.

On new lands, an agricultural tract of 400-500 hectares must be accepted as a unit of water utilization. All labor and material resources will be concentrated in such a large subunit.

How does one handle a watering flow of 300-400 liters per second? First of all, an area with a crosswise watering system and long furrows up to 400 meters in length should be selected. For distributing the water among the furrows, use should be made of special automated watering chutes 0.8 and 1 meter in depth, which combine the functions of a transit canal and a watering unit.

Extensive use will be found here for mobile watering pipelines and mobile watering chutes.

Thus the problem of mechanized watering, using the sprinkling and surface method, is inseparably associated with the need for rebuilding the intra-farm irrigation networks, developing the logistical base and training skilled personnel for servicing the watering equipment.

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CSO: 1824/386

## AGRICULTURAL MACHINERY AND EQUIPMENT

### SEED DRILL, OTHER EQUIPMENT PROBLEMS IN KAZAKHSTAN

#### Requirements for Certain Types of Equipment

Moscow SEL'SKAYA ZHIZN' in Russian 17 Feb 85 p 2

[Article by N. Detkin, deputy chief of the oblast agricultural administration, Kustanay Oblast: "Reserves of a Virgin Land Hectare;" see JPRS UAG 85.011, 25 Apr 85 for more on seed drill problems]

[Text] High and stable yields have become the norm for the 1st Brigade at the Karabalyk Experimental Station, which is headed by veteran virgin lands worker V.K. Lysenko. And again last year this harmonious collective obtained 17.2 quintals of grain from each of 2,500 hectares. Compared to neighboring farms, two and three times more grain was harvested at the sovkhoses imeni Lomonosov, Sovetskaya Rossiya, imeni Dimitrov, Dandinskiy, Arshalinskiy and Kazanbasskiy.

On these farms a persistent campaign is being carried out aimed at achieving a high culture of farming, all elements of the soil protection system have been mastered and the personnel follow attentively the recommendations of scientific institutes and quickly take advantage of the best experience available.

Roughly 3,147 crop rotation plans have been developed and are being mastered throughout the oblast, of which number 125 are for feed, 101 are specialized and 665 are for soil protection purposes. During the 11th Five-Year Plan, the party organizations, agricultural organs and agronomic services for the farms carried out a great amount of work in connection with giving greater recognition to fallow land and bringing the areas of such land into line with the scientifically sound norms.

An expansion in the fallow fields constitutes a powerful reserve for increasing yields and, it follows, raising the production of grain crops and particularly the chief crop of the virgin lands -- high quality wheat. This alone can inspire optimism and hope in the grain growers. A fallow field exerts a positive effect on the yield not only of the first crop in a crop rotation plan but also on subsequent crops. According to data supplied by the Kustanay Scientific Research Institute of Agriculture, during dry years and years characterized by average moisture conditions the yield of a second crop following fallow raises the grain harvest on tracts on which wheat is sown continuously by 40-60 percent. The overall increase in wheat obtained from the first, second and third sowings following fallow exceeds the yield from a

single-crop system by an average factor of 1.8. Three hectares of wheat in a grain-fallow crop rotation plan furnish as much grain as 5 hectares of continuous sowing.

Last year, when for all practical purposes not one drop of rain fell on the land throughout the entire growing season, including the tracts of fallow, the yields obtained from fallow land at the sovkhozes Stantsionnyy, imeni 50-Letiya SSSR, Barvinovskiy and imeni Dimitrov exceeded 20 quintals of grain per hectare. The fallow land at the sovkhozes imeni Budenny, Aleksandrovskiy, Razdol'nyy, imeni Letunov, Priozernyy and many others was more generous by a factor of 2-3 than other predecessor crop arrangements. In short, fallow land sowings furnished the principal amount of the grain harvested.

But a high return can be realized only if serious attention is given to the fallow land. Throughout the summer this land must be maintained in a clean state, windbreak strips must be sowed on them in a timely manner and mineral and organic fertilizer applied. Only if these measures are undertaken will it be possible to expect good yields. These are precisely the measures being taken by leading farms.

Unfortunately, there are examples of still another type. On a number of farms in Semiozernyy Rayon, for example, incidents have been uncovered of fallow land merely being mentioned in reports. Those who engage in eyewash and who have not yet been delivered from the disease of past years received their just deserts at the hands of the bureau of the oblast party committee. This incident has served and will serve as a fine lesson for the future for all those upon whom the carrying out of an intelligent and scientifically sound agrotechnical policy on farms throughout the oblast is dependent.

The most reliable path to be followed for achieving stable and programmed yields is the conversion of wheat cultivation over to intensive technology. This year the oblast's farmers are confronted by the following task -- to master this technology on 1,100,000 hectares. As a result of this measure alone, we must obtain more than 600,000 additional tons of grain. Not less than 21 hectares of grain per hectare must be obtained from each of 600,000 hectares of fallow land sowings and from 500,000 hectares of a second crop -- 17 quintals per hectare. Although high, these goals are nonetheless realistic. The oblast has been allocated the required amounts of mineral fertilizer, machines, implements and plant-protective equipment. This increasing economic potential must now be employed in an intelligent and thrifty manner.

In each rayon and on each farm, decisions have been made with regard to what must be done in order to ensure the mastering and introduction into operational practice of the intensive technology. The main portion of the areas will be located in the northern and traditional grain regions, where the land is more fertile and where the farms are better supplied with highly skilled workers. Specialists from the oblast's agricultural administration, jointly with scientific workers from the Kustanay Scientific Research Institute of Agriculture and experimental stations, have developed recommendations for introducing into operations the intensive technology for the cultivation of spring wheat. These recommendations contain detailed and thorough explanations of the agrotechnical requirements and also specific advice for carrying out

farming work under this year's conditions. The recommendations were carefully studied by the machine operators, specialists and farm leaders. They were examined and, following the introduction of appropriate corrections, they were approved during technical RAPO /rayon agroindustrial association/ councils and by the bureau of the rayon party committee. The grain growers were provided with a very clear and efficient program of actions.

Instruction was organized for specialists, brigade leaders, department heads and machine operators in carrying out field crop production work using intensive methods. The recertification of agronomists was conducted in January. Next in turn -- an examination for the brigade leaders and department heads. Approximately 11,000 machine operators take courses in order to familiarize themselves with the modern technological methods. It bears mentioning that for the most part the entire area employed for cultivating wheat using the intensive technology has been turned over to brigades and teams which work on the basis of a collective contract. Their leaders have already been approved during a meeting of the bureau of the rayon party committee.

In proceeding to carry out the large-scale plans for the intensification of grain production, it is important to emphasize that success will be achieved if there is close interaction among the partners in the agroindustrial complex. Meanwhile, the virgin land workers are experiencing a shortage of highly productive machines and implements needed for carrying out field operations as rapidly as possible.

It is difficult to exaggerate the role played at one time by the SZS-2.1 stubble sowing machine in introducing the soil-protective system into operations. However, it is not meeting the requirements of the intensive technology. The inter-row spacing which this machine forms during the sowing process is too large. Crowding of the seedlings in the rows is observed and weeds develop in the inter-row spacings. The SZS-2.1L sowing machine eliminates this considerable shortcoming. It distributes the seed uniformly and this in turn promotes better plant development. However, the oblast is being supplied with only a limited number of these machines. On many farms, so-called seed scatterers are being adapted for use with the traditional stubble sowing machines. This simple device raises the effectiveness of the old sowing machine. Nevertheless, the SZS-2.1L unit is preferred. The future lies with strip sowing. However, the industrial enterprises are in no hurry to reorganize in this direction.

An increase is taking place in the deliveries of mineral fertilizers to the farms. But almost no loaders are being received. The situation is the same with regard to seed loaders. Or let us take storage units. According to approximate estimates, the oblast requires no less than 3,000 such simple units. Our skilled experts in the sovkhos workshops are producing both loaders and storage units. For example, this year 1,350 such units will be made available to the rural areas. Certainly, this represents a solution for the problem, albeit not the best one.

Allow me to cite still another clear example. Once again, as a result of a shortage of equipment, many difficulties must be overcome in connection with moving organic fertilizer out onto the fields. It was in 1972 that the



specialists observed the TO-11 (D-660) loader being displayed during an exhibit; it was manufactured based upon use of the Kirovets machine. The prospectus indicated that it was to be produced by the Berlyanskiy Highway Machine Plant. A considerable amount of time has elapsed since that time and still the loader is not available. The machine operators were themselves forced to produce and mount shovels for the loading of humus on the Kirovets machines.

Under conditions involving intensification of the grain economy, greater importance is attached to the problem of the spring wheat variety to be employed. Just as in the past, the plant breeders are again under an obligation to the farmers. Before long it will be 30 years since the Saratovskaya-29 wheat variety was regionalized in our region. The efforts of the plant breeders are being directed towards ensuring that the virgin land workers are supplied with a new intensive wheat variety. And indeed the variety is quite properly considered to be the most important factor with regard to intensification of the grain economy. It is hoped that the workers at the scientific research institute of agriculture recently created in Kustanay, with the active assistance of the Eastern Branch of VASKhNIL /All-Union Academy of Agricultural Sciences imeni V.I. Lenin/, will be able to create such a spring wheat variety, one which will pass existing varieties in terms of yield, technological characteristics and baking qualities.

#### Development, Production, Shipments of Needed Machines

Moscow SEL'SKAYA ZHIZN' in Russian 11 Apr 85 p 2

/Article: "Reserves of a Virgin Land Hectare"/

/Text/ The USSR Ministry of Tractor and Agricultural Machine Building has examined the article published on 19 February under the title: "Reserves of a Virgin Land Hectare." The deputy minister A. Skrebtsov reports:

"It is noted quite properly in the article that the SZS-2.1L sowing machine ensures the distribution of seed in the form of wide strips and that this promotes better development of the plants. In conformity with the customer's request, this year's plan for the production of these sowing machines has been approved for 5,000 units. The initial 1,000 of these units have been shipped to the farms.

"For the mechanized loading of seed and mineral fertilizer, industry has commenced the production of a general purpose loader on the chassis of a GAZ-53 (GAZ-53-12) - ZAU-3 motor vehicle. This year's plan calls for an increase in capability in order to ensure the production of 1,500 of the mentioned loaders.

At the present time, loaders for the ZSL-7 sowing machine and also ZMU-8 machines for applying mineral fertilizer are in the developmental stage. Both are mounted on the chassis of a ZIL-122GYa motor vehicle. This year they are undergoing acceptance tests.

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CSO: 1824/327

## TILLING AND CROPPING TECHNOLOGY

### VARIETY DEVELOPMENT OF SPRING GRAINS DISCUSSED

Moscow SEL'SKAYA ZHIZN' in Russian 4 Apr 85 p 2

[Article by E. Nettevich, department director of the NII [Scientific Research Institute] of Agriculture in the Central Region of the Non-Chernozem Zone and corresponding member of VASKhNIL [All-Union Academy of Agricultural Sciences imeni V. I. Lenin] and by S. Grib, director of a breeding center for grain crops within the Belorussian NII of Farming, under the rubric, "Science for Production": "System of Varieties"]

[Text] It often happens that in concern for matters of great significance and importance one forgets about the smaller, seemingly secondary, concerns. But disregard for the latter often results in underproduction of the harvest. Let us look, for example, at the selection of varieties that enables an enterprise to produce the largest and most stable harvest. We often speak and hear about the advantages of new varieties, about the necessity to move them into production quickly but we forget about one very important detail: How is it that we are to achieve a maximal return? Which is the technological regimen that these varieties "work" best with and what must be done to effect the regimen? The underestimation and lack of knowledge about these conditions results in the fact that the expected increase is not always achieved by the new varieties.

At present 2-3 varieties of every grain crop have been regionalized for every soil-climatic zone. As a rule, these varieties differ greatly from each other. Some of them realize their potential more fully with quality cultivation. Others are less demanding of cultivation conditions. Each one has a unique aspect and its own agrotechnical and other characteristics. Taking this into consideration, recommendations are made about which wheat varieties should be cultivated after stubble predecessors, black fallow or with irrigation. Similar recommendations are no less important for other grain crops as well.

A differentiated approach to the selection of varieties is needed everywhere, including in the Non-Chernozem Zone of the RSFSR and in Belorussia. Let us look at spring barley, for example. In many parts of the RSFSR's Non-Chernozem Zone 30-40 percent of the grain fields consist of this crop. Many varieties are widely used here. Among them are the low-stemmed intensive types of barley--Luch, Nadya and Trumpf, the taller types that are less

demanding of growth conditions--Moskovskiy-121, Krasnoufimskiy-95 and Nosovskiy-9, and others. There are also varieties of an intermediate type--Dvoran and Karina.

In Belorussia the varieties Nadya, Mami, Favorit and Ida are cultivated. To replace and supplement them Moskovskiy-2, Moskovskiy-3, Zazerskiy-85, Zhodinskiy-5, Druzhba and Roland are being regionalized.

All of them surpass the yields of barley varieties cultivated earlier but at the same time they differ noticeably among each other. Thus, Zazerskiy-85 is characterized by high potential productivity and resistance to lodging. It is a relatively low-stemmed barley with elevated bushiness and slow growth during the first period after shoot-formation. But it demonstrates its full potential only on highly fertile soil that is free from weeds and well-moistened. At the same time, Moskovskiy-2, Moskovskiy-3 and Zhodinskiy-5 are less demanding of cultivation conditions. They are taller, more resistant to weeds but less resistant to lodging. On soils of average and less-than-average fertility they yield a larger harvest than intensive varieties, which have the advantage only when the general productivity level is 40-50 quintals per hectare and more. Under such conditions they add 8-12 quintals. But on fields where yield equals 25-30 quintals per hectare and less, the intensive varieties yield 8-12 quintals less than less-demanding varieties. Consequently, under such conditions one variety cannot be used to replace another--each must occupy its place in production in accordance with its biological characteristics.

Underestimating this condition has become one of the reasons for a decrease in the growth pace of spring barley in a number of oblasts. The overall transition of enterprises in the RSFSR Non-Chernozem Zone and Belorussia toward the cultivation of intensive types of barley, especially of types developed abroad, did not result in the expected growth in productivity. Moreover, in some oblasts a decrease was actually noted. What is the reason for this? The new barleys cannot demonstrate their advantages on soil that is not highly fertile.

In production, conditions for cultivating barley are extremely varied. This results in fluctuations in its productivity according to oblasts, rayons and enterprises. In the Central Non-Chernozem Zone, for example, oblasts produce 8-12 quintals as well as 25-27 quintals of grain per hectare. The differences are even greater by rayons or enterprises--yield ranges from 6-8 to 40-50 quintals per hectare. Naturally, for various conditions various varieties are needed since there are no varieties that are universal and appropriate for all circumstances. There are no varieties that "work" effectively when the yield level is 10-15 quintals as well as when it is 50-60 quintals.

The role of the variety in increasing yield is indisputable but should not be overestimated. A very attentive approach to the selection of varieties is needed. Workers of the State Commission on Variety Testing of Agricultural Crops, who have been expanding the assortment of grains, have had the right approach during the last few years. This does not reflect a striving toward multiple varieties, which must be avoided. However, we cannot count on increasing productivity under varying conditions and thanks simply to

the changeover to cultivating one particular variety. A system is needed, as is a carefully-selected group of varieties which supplement each other. This applies to every rayon and every enterprise.

We feel that in addition to regionalizing new varieties an indication should be given as to the conditions under which they should and must be cultivated. "Technical conditions" are needed for varieties, just as for machines. Such information is partially contained in endorsements of new breeds but it usually remains unknown to a wide circle of agronomists. In addition, not all scientific institutions by far send their varieties off with this type of "technological passport."

An analysis of the existing situation convinces us of the necessity to have a system of spring grain varieties which supplement each other. These varieties should differ in length of the vegetative period, adaptability to unfavorable weather and soil conditions during different periods of development, responsiveness to improved soil conditions and in natural genetic resistance to the main diseases.

Why does this question acquire special significance now? The saturation of crop rotations with grain crops have made the problem of selecting a predecessor more acute and has made the struggle against weeds and diseases as well as for high-quality grain more complicated. A high density of the plant stand made up of modern varieties and the introduction of increased doses of nitrogen fertilizers--all of this creates favorable conditions for the development of disease. Genetic uniformity of cultivated varieties and large areas of cultivation contribute to a rapid increase in infection. In addition, the increased frequency of weather anomalies sometimes makes demands of varieties that are difficult to combine into one organism. As experience has shown, even in the RSFSR Non-Chernozem Zone and Belorussia, which are considered to be regions that are well-supplied with moisture, varieties of spring grains must also be characterized by considerable drought-resistance. Here there is often too little precipitation, and both thin podzols and sandy loam soils retain water poorly. At the same time, there are frequently years with surplus moisture. In other words, we need varieties which will yield large and stable harvests under different weather conditions and on soils with different fertility levels.

Of course, as yet we cannot propose full-value systems of varieties for all spring grain crops and for all regions of the Non-Chernozem Zone and Belorussia; however, an understanding of such systems and a knowledge of the principles for developing them make the work of breeders and variety testers more purposeful. Both directors and specialists must have a precise understanding of this question.

In Belorussia a system of varieties has already been developed. It includes three groups of varieties of spring barley. The first group includes the most rapidly maturing varieties of the Ida type. The second includes Roland and Zhodinskiy-5 varieties and the third--Zazerskiy-85 and Favorit. They differ in maturation time and reaction to external conditions and in degree of resistance to lodging and infection with disease. Moreover, resistance to pathogens in these varieties differs in genetic basis; for this reason, if



epiphytotic disease develops harvest losses will be relatively small. All of these varieties also differ considerably in their reaction to optimal cultivation conditions. Thus, Ida, Roland and Zazerskiy-85 are more responsive to the application of large doses of mineral fertilizer and to a good moisture supply. But they are less suitable for cultivation on less than highly fertile soil, and when sown following stubble predecessors they decrease in yield. On light soils the Ida variety is lower in yield than Roland and Zhodinskiy-5 even with the application of large doses of fertilizer.

The ratio of varieties from among these three groups of barley within the enterprise is determined by the enterprise's specific conditions, but in the republic as a whole the optimal structure of varieties looks this way: it is expedient for varieties of the first group to occupy 20-30 percent of the total area, of the second--40-60 percent and of the third--30-40 percent. As practical experience shows, with the cultivation of the three groups of varieties, gross grain yield turns out to be much higher and more stable than if any one of these varieties were cultivated singly over a period of a number of years.

Several oblasts of the RSFSR's Non-Chernozem Zone also have a successful selection of spring barley varieties at their disposal--this includes varieties Nosovskiy-9, Moskovskiy-2 and Moskovskiy-3. They are suitable for cultivation in the majority of enterprises and can achieve a stable average productivity of 20-30 quintals per hectare. For enterprises with a large yield of spring barley when the crop is cultivated according to industrial technology, which presupposes a yield of 50-60 quintals per hectare, the varieties Zazerskiy-85 and Druzhba can be good auxiliaries.

The correct utilization of regionalized varieties of various types will enable us to move to a higher level of productivity rapidly. We should avoid a repetition of tolerated errors and a general transition to intensive varieties. When determining the variety structure of spring barley crops in oblasts, rayons and enterprises the achieved level of productivity and its stability must be considered first of all.

A system of varieties is not an end in itself but an effective means of increasing yield and adding to its stability. When creating this system the real possibilities of an enterprise to work with several varieties and the expediency of this must be considered. For example, in cases in which the sowing area is small or soil fertility is the same everywhere it is possible that one variety will be adequate. On large areas and under varying cultivation conditions this is not true.

Instructional experience concerning the skilful use of a system of varieties exists in the Baltic states. Here the main varieties of spring barley are supplemented with varieties that mature more rapidly and that are better suited to light soils. The different needs of varieties and their responsiveness to fertilizer are taken into account here. All of this enables enterprises to achieve larger and larger yields.

The above considerations apply to oats as well as spring barley. The principles for the correct use of varieties must be one, i. e. they must have a production as well as a scientific basis.

2 July 1985

## FORESTRY AND TIMBER

UDC 629.114.2:061.4

## TIMBER MACHINERY AT 'LESDREVMASH-84' EXHIBIT DESCRIBED

Moscow TRAKTORY I SEL'KHOZMASHINY in Russian No 3, Mar 85 pp 45-52

[Article by Candidates of Technical Sciences L.I. Yegorov, Yu.Ye. Ryskin and L.A. Rogalyuk (TsNIIME [not further identified]): "Timber-Working Tractors at the International 'Lesdrevmash-84' Exhibit]

[Excerpts] The international "Machinery, Equipment and Tools for the Timber and Woodworking Industry" exhibit--"Lesdrevmash-84"--was held in Moscow from 12 to 20 September 1984. Timber working tractors and various lumbering vehicles developed from them occupied an important place in the exhibit.

A study of the displays and prospectuses of foreign firms and enterprises of the USSR, as well as the reports presented at scientific and technical seminars and symposiums conducted as part of the exhibit program, made it possible to identify the following main trends in the development of this equipment. The extensive use of tracked and wheeled tractors for the total mechanization of labor-intensive and heavy jobs in the timber industry and forestry by using them to develop special machines linked together into systems is still a stable trend. There is a precisely defined trend of designing special timber handling tractors and chassis for the timber industry, especially for felling operations. Standardized assemblies and systems are being developed for timber working machines.

Timber management and ecological requirements are having an ever increasing influence on the design and the characteristics of the tractors as the basic machines. A great deal of attention is being devoted to the creation of comfortable operating conditions for the tractor drivers.

Logging machines based on the TT-4 caterpillar tractors manufactured by the Altay Tractor Plant imeni M.I. Kalinin and the TDT-55A produced at the Onega Tractor Plant, as well as machines based on the T-157 wheeled tractors produced at the Kharkov Tractor Plant imeni S. Ordzhonikidze and K-703 produced at the "Kirovskiy zavod" production association were extensively represented in the Soviet section.

The TT-4 tractor has been used for developing a system of machinery for felling operations in medium and large forests. It consists of an LP-49 felling and skidding machine, the LP-33 branch trimming machine and the LT-65B jawed loader. These machines, which were on display at the exhibit, are series-produced by enterprises of the Ministry of Construction, Road, and Municipal Machine Building

and have performed well in logging operations. The VM-4A felling and skidding machine, the LT-154A and LP-18A chokerless machines, the LT-33 log stacker, the LP-52 stump puller and other machines based on the TT-4 tractor are also being produced.

In the years to come, these and a number of other logging machines will be produced from the modernized TT-4M tractor, which was displayed at the exhibit. A new arrangement of the upper structure and an altered frame design have made it possible to free additional space for the technological equipment of the linked machines. The airtight, heat- and noise-insulated, vibration damping cab is equipped with a rotating seat, dual controls and an effective heating and ventilation system. Wider tracks and an enlarged base have made it possible to reduce the tractor's unit pressure to 0.043 MP [expansion unknown].

A system of machinery has been developed out of the TDT-55A tractor for felling operations in small forests. It consists of an LP-17 felling and skidding machine, and LP-30B branch cutting machine and the jawed PL-1B loader. The TB-1 machine for chokerless skidding, the LKhT-55 forestry tractor, the LT-35 log kicker, the LD-17 panel stacker, the LT-168 loading and transporting machine, the PLO-1A unit for loading and transporting resinous wood, and others are also produced from this tractor.

In the future, these and a number of other logging machines will be produced from the modernized OTZ TB-1M tractor. The LKhT-10CB tractor developed by the Onega Tractor Plant and the TsOKBleskhovmash [Central Experimental Design Office of Forestry Machinery?] for reclamation work, which has a reduced unit pressure on the soil of 0.021 MP, was also displayed at the exhibit.

The list of logging machines developed from the T-157 tractor, which is the T-150K farm tractor modified for forestry work, is being enlarged. Models of the LT-171 chokerless skidding machine, the LO-110 unit for splitting stumps, the LT-143A lumber hauler and others were displayed at the exhibit.

After the modernization of the T-157 tractor has been completed, these machines will be produced from the modernized T-157M tractor.

The wheeled K-703 tractor, which is the K-700A farm tractor modified for forestry work, was displayed at the exhibit. The tractor serves as the basic unit for a number of loading, transporting, felling and road construction machines, which are effectively used in the timber industry.

The wheeled TL-28 tractor developed on the SSh-28 self-propelled chassis was displayed at the exhibit. It was developed for skidding timber through woods in patchy felling areas and for other timber industry operations. The tractor has an articulated-joint frame and good maneuverability.

## Conclusions

The TT-4 and TDT-55A caterpillar tractors continue to make up the basic tractor pool in logging operations in the Soviet Union. They serve as the basis of systems of machinery for felling, timber hauling, flotation and stockpiling operations and forestry work. The list of logging machines produced from the T-157 and K-703 wheeled tractors is also being enlarged.

Special wheeled timber tractors with an articulated frame are mainly used in logging operations in the European nations. The development is following the path of perfecting the units and the systems of tractors in accordance with well-known component arrangements.

Due to the shifting of logging operations to regions with worse climatic conditions and to the increased demands being made with respect to environmental protection, the running gear of tractors are being improved to increase their cross-country ability and reduce damage to the top-soil. Machines with an 8X8 wheel formula and with replaceable tracks are undergoing development. Special, large-sized tires and chain tracks are being developed.

The use of hydrostatic transmissions on timber tractors is increasing.

Tractors are being improved with respect to operating safety and ergonomics. A safe cab with a rotating seat and air conditioner, which provides a good field of view, dual controls, servo- and electro-hydraulics for controlling the machine have become ordinary components of tractors produced by foreign firms.

A great deal of attention is being given to reducing the amount of labor involved in the technical servicing and repair and to providing easier access to the servicing points.

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## WATER RESOURCES AND LAND MANAGEMENT

### RECLAMATION WATER MANAGEMENT DEVELOPMENTS OUTLINED

#### Deputy Minister Interviewed

Moscow EKONOMICHESKAYA GAZETA in Russian No 51, Dec 84 p 16

[Interview with Deputy USSR Minister of Water Resources and Land Management V.F. Mokhovikov by an EKONOMICHESKAYA - GAZETA correspondent: "Accountability for the Yield"]

[Text] The October 1984 Plenum of the CPSU Central Committee approved the Long-Term Land Reclamation Program. It contains large and important tasks for the nation's water management organizations. Our correspondent met with Deputy USSR Minister of Water Resources and Land Management V.F. Mokhovikov and asked him a number of questions.

[Question] The CPSU Central Committee Plenum devoted a great deal of attention to the effective use of existing improved land and to increasing responsibility in this matter not just of the farms, but of the enterprises serving them as well. What are the priority tasks now being accomplished by water management organizations?

[Answer] A total of 11.5 billion rubles is being spent on reclamation work in 1985. We have to place into use 1.4 million hectares of drained and irrigated land and 3.9 million hectares of flooded pasture land. The collectives of the water management organizations are focusing their efforts primarily on improving the condition of the reclaimed land, performing major leveling work, rearranging the irrigation systems and increasing their water supply, as well as on implementing technical cultivation projects, eliminating small fields and liming the soil. Something totally new is being added to these duties--engineer support for the programming of yields.

Agreements to be concluded between kolkhozes, sovkhoses and water management organizations and enterprises, as well as Sel'khoztekhnika and Sel'khoz khimiya [Association for the Adoption and Application of Chemical Methods in Agriculture?] services, in accordance with the decree recently passed by the USSR Council of Ministers will greatly help to make the use of reclaimed land more effective. The basic provisions of the standard agreement define the duties and responsibility of the farms and of the enterprises servicing them.

Among other things, the kolkhozes and sovkhoses are required to assure that complete and highly efficient use is made of each hectare of reclaimed land and to assign it to permanent brigades (or teams), which will operate under a collective contract, and to keep separate records on output.

The operating organizations in water management will commit themselves to perform the entire group of jobs involved in the repair and technical maintenance of the intra-farm reclamation system, to maintain it in a state of repair and to provide a constant supply of water according to the schedules.

The duties of the other partners are clearly outlined --Sel'khoztekhnika, Sel'khozkhimiya and the Poliv rayon production associations. Sel'khoztekhnika specialists will see to the delivery, the timely repair and technical maintenance of tractors, sprinklers, the power and pumping equipment. Sel'khozkhimiya organizations along with the farms will bear responsibility for the application of organic and mineral fertilizers to all crops in quantities assuring the yields specified in the agreements.

The financial liability for failure to fulfill commitments is defined for each party to the agreement. For example, if a water management enterprise has delayed with the repair or technical maintenance of the intra-farm reclamation system, as well as the irrigation of the crops, or has delayed the work or performed it poorly, and this was the cause of a lower yield than specified in the agreement, it (the enterprise or organization) reimburses the farm for the value of the output it did not obtain (at procurement prices).

Sel'khoztekhnika and Sel'khozkhimiya enterprises and organizations bear the same degree of liability, if the kolkhoz or sovkhos does not achieve the output specified in the agreement through their fault.

The kolkhozes and sovkhoses also bear financial liability for poorly organized work or failure to carry out the system of agrotechnical measures, and this results in a lower yield than specified in the agreement. They deposit an amount covering the value of the output not obtained, calculated on the basis of state procurement prices, in a special RAPO [rayon agroindustrial association] account in the bank.

Authority to determine the degree of guilt of the parties is vested in a commission appointed by the rayon agroindustrial association. Settlements for making up the value of the output shortage will be made in the form of authorizations of payment in accordance with RAPO enactments.

[Question] The land reclamation program calls for transferring the intra-farm irrigation systems of kolkhozes and sovkhoses to the books of the water management organizations. How is this going to be accomplished?

[Answer] First of all, I would like to point out that the reclamation and water management organizations presently service only the intra-farm systems. This involves mainly large pumping stations, canals, dams and reservoirs. The water delivery system on the kolkhozes and sovkhoses, however, which were laid mainly at the state's expense, as well as all of the irrigation equipment are still on the books of the kolkhozes and sovkhoses. A lack of the necessary equipment and highly skilled specialists on the farms prevents the reclamation systems from being maintained at the proper technical level.

It has been deemed expedient to transfer in the period 1986-1990 the entire water management system, water-engineering works, pumping stations and vertically drained wells from the books of the farms to the books of the state water management operating organizations. This is approximately 20 billion rubles of fixed capital and servicing personnel of around 100,000 specialists.

Thirty percent of the cost of maintaining the intra-farm system of the kolkhozes and sovkhozes will come out of the state budget, and the remainder will be paid by the farms themselves. This step is a new demonstration of the concern of the party and the government for improving the farm economies, building up their materials and equipment base and better preserving socialist property.

The transfer of intra-farm systems and water-engineering works to the books of the water management organizations will make it possible to have a unified technical policy in the branch and to work out new methods of enhancing the productivity of the fields and economical irrigation methods. This step is also of great importance with respect to the planned territorial redistribution of water from northern rivers to the southern regions, since it will make it possible to prepare in advance for receiving the water.

Preparation of the operating organizations is now underway. Specifically, a great deal of attention is being given to the technical equipment, the creation of a repair and construction base and the modernization of existing facilities. Inter-departmental scientific and technical programs have been made up jointly with the machine-building ministries, which cover the provision of the necessary lists of automation, remote-control, microprocessing and information correlating devices. A great deal of attention is being devoted to the training and preparation of cadres.

[Question] The 4th year of the 11th Five-Year Plan is coming to an end. How are the water management organizations coping with the planned assignments?

[Answer] The five-year plan got off to a bad start for a number of our subdivisions. The main capital construction figures were not met for the first 2 years. The ministry shares some of the blame. Certain organizations were given planned assignments not very consistent with their capacities. A decision was therefore made to perform a more detailed study of the situation at the sites, in order to consider the possibilities of our subdivisions for breaking down the plans in the future. At the same time, the delivery schedules began to be constantly monitored. The plan for contracted jobs was fulfilled in 1983, as were assignments for placing irrigated and drained land and agricultural water supply facilities into use.

Land reclamation workers in the Nonchernozem completed their assignments for the first time. They placed many thousands of hectares of restored land into use.

Most of the republic ministries and territorial main administrations have fulfilled their planned assignments for the first 11 months of this year. The ministries of land reclamation and water resources of the RSFSR, the Belorussian and Lithuanian SSR's, Glavazmeliovodstroy [Main Administration for Reclamation and Water Management Construction in Asia?], Glavkarakumstroy [Main Administration for Development of the Kara Kum?] and Glavvolgovodstroy [Main Administration for Volga Water Resources Construction] completed the year's plan for releasing reclaimed land into

use back in October. There is every reason to believe that it will be fulfilled for the ministry as a whole.

Unfortunately, however, certain subdivisions have not picked up the pace of the construction sufficiently. Moldavia's Ministry of Land Reclamation and Water Resources, Glavdagestanvodstroy [Main Administration for Water Management Construction in Dagestan?], "Soyuzkalmvodstroy" and others regularly fail to fulfill the plan. In short, we still have a great deal to do in light of the demands set at the October 1984 Plenum of the CPSU Central Committee.

An example of genuine concern for the development of the branch continues to be set by the Muscovites, who have decided to increase the contribution made by industry, the scientific design and planning institutions in the capital to the acceleration of scientific and technical progress. The search for new methods and technology for increasing labor productivity is being expanded for this purpose in cooperation with the minister's central apparatus. Approval has been given to an initiative of the "Soyuzgiprovodkhov" head institute to reduce the time required for developing the plans by 10 percent and to reduce their cost by five percent.

#### Follow-Up Report by Dagestan Official

Moscow EKONOMICHESKAYA GAZETA in Russian No 7, Feb 85 p 9

[Response to article "Accountability for the Yield" in Issue No. 51 for 1984, by T. Mamashev, Chief of the Glavdagestanvodstroy of the USSR Ministry of Land Reclamation and Water Resources]

[Text] This article contained critical comments about Glavdagestanvodstroy's contract organizations for failing to fulfill reclamation construction plans. The article was considered and discussed in the main administration.

Organizational and technical measures for eliminating shortcomings in the organization of the construction process were worked out and approved at an enlarged meeting of the board. They call for placing 5,300 hectares of new, irrigated land into use, compared with a planned figure of 5,200 hectares. It is planned to improve the condition of improved land on an area covering more than 15,000 hectares, to rearrange the irrigation systems and increase their water supply on 5,500 hectares. These goals also exceed the plan figures.

#### Moldavian SSR Official Responds

Moscow EKONOMICHESKAYA GAZETA in Russian No 9, Feb 85 p 14

[Response to article "Accountability for the Yield" in Issue No. 51 for 1984, by I. Romanov, deputy minister of the Moldavian SSR Ministry of Land Reclamation and Water Resources]

[Text] The article was reviewed in the Moldavian SSR Ministry of Land Reclamation and Water Resources. We are presently making a decisive switch from the construction of small reclamation systems to large irrigated tracts, which provide a large yield on the capital and most fully meet the demands for concentrating and specializing agricultural production.



The ministry has still not picked up the pace of the work sufficiently, however. The 1985 plan calls for further concentrating financial resources on the most important construction projects. It is planned to apply almost 64 million rubles in capital investments, 57 percent of the total volume, on 15 such projects and to place 84 percent of all the irrigated land into use.

This year, considerable attention will be devoted to developing the production bases of the water management organizations. Almost 16 million rubles is being spent for this purpose, which is 1.5-fold more than the 1984 figure. The main attention is being devoted to improving social and living conditions for the reclamation workers. Almost 10 million rubles has been allocated for housing construction. This is twice the amount spent for this purpose last year. The plan is increasingly oriented toward increasing the use of the intensive factors, raising the technical level of production, improving the quality of the work and achieving the best possible coordination of the work of all the ministry's subdivisions.

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WATER RESOURCES AND LAND MANAGEMENT

IRRIGATION PROBLEMS IN KHERSON OBLAST -- FOLLOW-UP COMMENTARY

Mutually Responsible

Kiev PRAVDA UKRAINY in Russian 19 Mar 85 pp 1-2

Article by an inspection team consisting of A. Kulik, Hero of Socialist Labor and chief of a mechanized detachment at the Kakhovka Sovkhoz Technical School; A. Korchinskiy, laureate of the State Prize of the USSR, chief of a mechanized detachment at the Sovkhoz imeni 60-Letiya Sovetskoy Ukrainy in Belozerskiy Rayon and agricultural correspondent; N. Lipa, inspector for the oblast's people's control committee; O. Moshchitskiy, editor for oblast television and N. Abramenko, PRAVDA UKRAINY correspondent, Kherson Oblast: "Mutually Responsible"/

Text There are 416,000 hectares of irrigated land in Kherson Oblast and thus it can be said that one out of every five hectares is irrigated. These lands produce one half of all products obtained from field crop husbandry operations. Last year, considered to be an unfavorable one, the irrigated lands furnished one fourth of all of the grain, one half of the green and succulent feed, two thirds of the grain corn and 91 percent of the vegetables. These were impressive figures. Nevertheless, they were considerably less than the amounts that can and must be obtained from renewed lands being operated by skilled hands.

Compared to Kakhovskiy Rayon where the grain crops last year produced 58.8 quintals of grain per hectare, in Golopristsanskiy Rayon -- only 35.4 quintals per hectare. Individual farms and subunits provide an even more striking contrast. At the Order of Lenin Kolkhoz imeni Kirov in Belozerskiy Rayon, the grain crops produced 73.8 quintals and at the Kolkhoz Put' K Kommunistam in Novotroitskiy Rayon -- only 14.8. Whereas the mechanized detachment of Hero of Socialist Labor A.I. Kulik at the Kakhovka Sovkhoz Technical School obtained 125 quintals of grain corn from each of 200 hectares, the team headed by S.K. Razumeyko at the Voskhod Sovkhoz in Skadovskiy Rayon obtained only 4.2 quintals of grain from each of 135 hectares. And all of this took place on irrigated land!

Last year, only 50 of 259 farms having irrigated land surpassed their planned yields. During 4 years of the five-year plan, the planned yields were achieved on only 38-42 percent of the irrigated areas.

Following the October (1984) Plenum of the CPSU Central Committee, the oblast's farm leaders and specialists introduced substantial corrections into the

structure for the area under crops. Their goal was as follows: to ensure that the irrigated lands were occupied by highly productive crops, which were to be grown using mainly the industrial technology. Improvements were carried out in the training and retraining of the irrigation personnel and the forms for their labor organization and wages were also improved. The areas on which mineral fertilizers and herbicides are to be applied together with the irrigation water are being expanded.

Nevertheless, one of the chief points of these measures -- that of completing the preparation of all irrigated lands for operation prior to 15 March -- was not carried out. Within the oblast, approximately 100 kilometers of intra-farm canals, 450 sprinkling machines and 250 units of power-pumping equipment were not prepared for use.

An unattractive picture developed at the Kolos Sovkhoz in Kalanchakskiy Rayon, where there are 2,500 hectares of irrigated land. The canals became covered with snow and last year's reeds were rising up everywhere. The scrap metal heap in the machine yard contained wheels, girders and units from sprinkling machines.

The chief engineer V.V. Verbiy, who had already reported that 11 of 17 irrigation machines had been repaired, thoughtfully explained:

"Our fields with their canals and irrigation equipment and also the machine yard stand out in the open. They are not protected against the snow and cold weather."

"And what was done before the arrival of the snow and cold weather?"

"We do not have a sufficient number of workers. But every cloud has a silver lining. The cold weather delayed the commencement of the spring field work. The snow added moisture to the soil and thus the irrigation work could be postponed until later. Thus there is still time..."

A similar development was seen and overheard being discussed at the sovkhozes Chernomorskiy, Yuzhnyy and imeni Suvorov in Golopristsanskiy Rayon, at the kolkhozes imeni Kalinin, imeni Karl Marks and Pamyat' Il'icha in Genicheskiy Rayon and at the sovkhozes Iskra and Novomayachkovskiy in Tsyurupinskiy Rayon and Zavety Lenina and imeni Karl Marks in Chaplinskiy Rayon. The greatest number of problems was observed on farms in Golopristsanskiy and Kalanchakskiy rayons.

The chief of a mechanized detachment at the Stepnoy Kolkhoz in Novotroitskiy Rayon, I.V. Bunyak, stated:

"Negligent farm leaders always hope that the weather will conceal their errors. Usually, such hopes end with a shortfall in yield. I believe that spring will be late but favorable this year. Thus, those who wasted time have but one solution -- to hurriedly place their canals in proper working order and to complete the repair work on their irrigation equipment.

The mechanized detachment headed by I.V. Bunyak lost no time. At the Stepnoy Kolkhoz, just as at the kolkhozes Zarya, Tavriya, Pobeda, imeni Gor'kiy and

Rossiya in Novotroitskiy Rayon, all preparations were made for work out on the irrigated lands. There remained only the task of testing the sprinkling machines under a workload.

"This will require a week's time" stated the chief of the rayon administration for irrigation systems G.M. Lakhmatov, "True, we will still have to inspect 20 pumps. This we left until the end; under a reliable roof, the inspection can be carried out during all types of weather. Thus, all 59,000 hectares of irrigated land will be in a complete state of readiness.

It should be added that this work was carried out by 767 individuals, with the volume of productive work carried out by one worker being the highest in the oblast. The entire secret lies in the fact that on the eight farms the tracts of the rayon administration for irrigation systems are already being serviced not only by intra-farm canals and pipelines but also by sprinkling machines. The water is delivered not only to the fields but also to the roots of the plants.

The operators of the sprinkling machines are included on the table of organization of the administration and they are paid from funds made available by the farms for irrigation and they receive additional payments -- at kolkhozes and sovkhozes, on the basis of a collective contract, for having achieved the planned yield or for above-plan output. Out on the fields they are subordinate to an agronomist, between waterings they work on tractors and combines and the operation and maintenance of the irrigation equipment are carried out under the direction of specialists attached to an aquicultural organization.

Within the oblast, contracts are concluded between the farms and subunits of the aquicultural organizations, sel'khoztekhnika and sel'khozkhimiya. In the majority of instances, this work is carried out in a business-like and high-principled manner. Unfortunately, not all of the problems have as yet been solved. In particular, there is still a great amount of confusion over the payments for certain types of work. An accident occurs, one of minor importance, and sel'khoztekhnika and the Kherson Combine Plant Production association (where the Dnepr sprinkling machines are produced) establishes an account for hundreds of rubles. Nor do the repair services appear to be shy in evaluating their own services. For example, it is necessary to preserve a Fregat machine -- the cost is 95 rubles and 80 kopecks and to remove it from conservation -- one must pay 166 rubles and 20 kopecks.

"This is outright fleecing" declared the director of the Sovkhoz imeni 60-Letiya Sovetskoy Ukrainy in Belozerskiy Rayon, Hero of Socialist Labor V.I. Stetsenko, "We must cultivate, harvest and sell 5 tons of grain in order to be able to pay for the servicing of just one irrigation machine.

Strangely enough, we still do not have an agreed upon price for carrying out capital repairs on a Fregat machine. The repair workers charge 18,000 rubles for this work. Certainly, the republic's Minsel'khoz /Ministry of Agriculture/ is not in agreement with this figure: it is too costly. Experience indicates that 8,000-12,000 rubles would be adequate. This problem is in need of an urgent solution. Within the oblast there are already 453 Fregat machines which have exceeded their service life. However, the specialists are of the



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opinion that 7-8 of 10 old machines can be restored to good technical working condition and be able to provide service for another dozen years.

Allow me to touch briefly upon economic responsibility. This was discussed rather clearly in the decision handed down during the October (1984) Plenum of the CPSU Central Committee. Contracts drawn up between the operators of irrigated lands and their partners were directed towards strengthening this responsibility. In a number of areas, as mentioned above, serious attention is being given to the drawing up of contracts and to ensuring that they are carried out. But not everywhere. There are those who attempt by every possible means to avoid economic responsibility. When the recommendation was made to the directors of the Kherson and Kakhovka electrical network enterprises I.P. Golovko and A.V. Kumaranskiy that they join together in an agreement for responsibility for the effective use of irrigated lands, they declined to do so: they maintained that they had received no such instructions from their ministries. And such instructions are needed. Indeed, last year 6 million cubic meters of water were not delivered to the fields on a timely basis simply because the electric power was suddenly turned off and still another million or two cubic meters of water were not delivered as a result of defects in the Fregat and Kuban' machines.

#### Officials Comment on Corrective Measures Undertaken

Kiev PRAVDA UKRAINY in Russian 12 May 85 p 2

/Articles by G. Strel'chenko, secretary of the Kherson Oblast committee of the Communist Party of the Ukraine and V. Katran, deputy minister of Land Reclamation and Water Management for the UkSSR: "Responses to PRAVDA UKRAINY"/

/Text/ In the 19 March 1985 article entitled "Mutually Responsible," vital questions were raised with regard to increasing the responsibility of personnel for the use of irrigated lands and fair criticism was handed down regarding shortcomings and lack of agreement among organizations responsible for servicing the land reclamation resources of kolkhozes and sovkhoses.

The newspaper article was discussed during a meeting of the party-economic aktiv of land reclamation specialists. It was also examined during meetings of technical-economic councils of the oblast's Sel'khoztekhnika Association, the administration for land reclamation and water management, the bureaus of a number of rayon party committees, the councils of rayon agroindustrial associations and also at meetings of farm land reclamation specialists.

A joint meeting of the party committee and technical council was held at the Kolos Sovkhoz. The chief engineer-mechanic V. Verbiya and the chief hydraulic engineer A. Kotov were reprimanded for having displayed an irresponsible attitude towards their official duties, for a low level of exactingness towards middle echelon specialists and for failing to undertake the measures required for preparing the intra-farm irrigation network for the irrigation season in a timely manner. At the present time, the farms are prepared for carrying out the irrigation work.

Measures have been undertaken aimed at completing the repair work on farms which were subjected to criticism.

The organizational work of the party committees and soviet and agricultural organs has been concentrated on ensuring efficient and harmonious operations out on the irrigated lands. Measures are being implemented aimed at improving the structure of the areas under crops -- the sowings of grain corn, perennial grasses and other high yield crops are being expanded. Industrial technologies for the cultivation of row crops will be introduced into operations in all areas.

The irrigated lands have been assigned to 666 mechanized detachments and teams, including 530 collectives which are operating on the basis of a contract. All of the detachment chiefs and team leaders have improved their qualifications by taking short-term courses at the Ukrainian Scientific-Research Institute of Irrigation Farming.

Contracts for the highly efficient use of irrigated lands have been concluded between the farms and their partners in the agroindustrial complex. In subunits of the oblast Sel'khoztekhnika Association, the repair of engines and pumps for the DDA-100MA sprinkling machines has been organized and 24 traveling teams have been created for servicing irrigation equipment of the Dnepr and Volzhanka types. Based upon experience accumulated at the Kolkhoz imeni Kirov in Belozerskiy Rayon, radio communications are being established on a number of farms throughout the oblast between the sprinkling units and a dispatcher point. This action is expected to eliminate certain discrepancies. The new form for the organization and carrying out of irrigation work by aquicultural organizations will undergo further development. This year the land reclamation specialists of the Novotroitskiy Irrigation System Administration will carry out irrigation work on an area of 11,100 hectares. This promising form for labor organization is being introduced into operations at the Krasnoznamensk Irrigation System Administration. The Kakhovski Rayon Poliv Production Association and the irrigation system administration will irrigate crops on an area of 56,400 hectares.

This year the irrigation farming workers in Kakhovski Rayon resolved to achieve their planned yield on each irrigated hectare. This initiative has been approved by the bureau of the oblast party committee and is receiving broad support from land reclamation specialists throughout the oblast.

V. Katran, Deputy Minister for Land Reclamation and Water Management for the UkSSR

The shortcomings mentioned in the 19 March 1985 article entitled "Mutually Responsible," with regard to the preparation of irrigated lands and the repair of an irrigation network, land reclamation equipment and power-pumping equipment at kolkhozes and sovkhoses in Kherson Oblast, truly took place. As a result of measures undertaken throughout the oblast, 387,400 hectares of agricultural land were prepared for irrigation against a plan calling for 387,000 hectares, 1,392 kilometers of intra-farm irrigation pipeline were repaired against a plan calling for 1,110 kilometers and 3,251 hydraulic engineering structures were built against a plan calling for 2,753.

Repair work on the power-pumping equipment and sprinkling equipment has for the most part been completed. Work is being carried out in connection with raising the effectiveness of use of irrigated tracts of land. Contracts have

been drawn up for the highly effective use of irrigated lands on an area of 362,000 hectares. The programmed cultivation of grain, vegetable and forage crops will be introduced into operations on an area of 174,000 hectares of irrigated land in 1985.

Following the example of the Novotroitskiy Irrigation System Administration, the decision has been made to introduce the new forms for organizing and carrying out the irrigation of agricultural crops on an area of 56,000 hectares using the resources of the irrigation system administration and the Kakhovka Poliv RPO /rayon production association/.

The union directive organs are solving those problems concerned with organizing capital repair work on Fregat sprinkling machines and establishing the cost of repair work based upon actual expenditures.

The UkSSR Minvodkhoz /Ministry of Land Reclamation and Water Resources/ believes that the article covered properly the problems concerned with raising the responsibility of partners in the agroindustrial complex for the effective use of irrigated lands and undertaking measures aimed at improving the work of the aquicultural organizations and achieving stable operation of the irrigation systems.

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